

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics.

Global Evidence on the Relation
between Monetary Policy and Financial Stock Market

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Abstract

There is a common ground among researchers, that monetary policies have a strong relation with stock market returns, but no unanimous statements about the relevant macroeconomic indicators in terms of correlation sign. We studied the relation of stock markets with inflation, interest rate, GDP and monetary supply using a quarterly data time series, covering a 30-year period (1989 to 2019) including 199 countries and sovereign states. We concluded that over-developed economies required further research about macroeconomic variables. However, this is not true for under-developed economies, since their financial market can be comprehensive, though not exhaustively elucidated through the macroeconomic variables available.

Keywords: stock market return; monetary policy; macroeconomic variables; inflation; interest rate; economic growth rate; money supply; relation.

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1. Introduction

Tobin (1978) introduced the discussion about the relationship of monetary policies in economic aggregates, which is of great significance for the global economy and a driver for monetary research.

Since the late seventies in the XX century and according to previous research (Bernanke, Kiley, Roberts, 2019; Dell’Ariccia, Rabanal, Sandri, 2018; Husted, Rogers, Sun, 2017; Gary, 2016; Laichena, Obwogi, 2015; Ouma Muriu, 2014; Kwon, Shin, 1999) we conclude that the relevance of such policies could be researched, based on the policy itself, and its goals, as well as the study of different macroeconomic variables which should be part of monetary policies, construct in order to achieve the necessary goals.

We reckon that there are different types of monetary policies based on various economic developments and their goals. Furthermore, the globalisation of the economy became an alert owing to the contamination impacts among economies, considering the inter-dependence of financial markets. Taking into consideration all variables and simplifying the research process. All variables considered and to make it simpler, from the financial researcher point of view, we decided to start from the analysis of Ioannidis & Kontonikas (2006), which lead research about the correlation relationship ranging from 1972-2002. However, it should be noted that we are leaving behind the exchange rate and will be using the euro as a reference (Draghi, 2018). Developing this analysis further while taking into consideration the impact of the previous global financial crisis of the period ranging between 2008 to 2014 (Rey, 2015; Friedman, 2005), therefore we aim to conduct a global financial market analysis from the 1989-2019 period, to check different types of monetary policies and macroeconomic variables, the structure of financial markets in different contexts (different continents and different economic development stages) as well as to research the relation of money supply, economic growth rate, inflation rate (Boons, Duarte, Roon, Szymanowska, 2019) with stock market index, equities and stock returns (Ferreira e Serra, 2019).

Recent research in monetary policies and macroeconomic variables address their relationship with the economy at various levels. Different approaches try to identify which set of variables has significant correlations with the financial stock market. Consequently, we need to research the association of as many variables as possible, considering data provided by Thomson Reuters database, which gives us almost any country's economic and financial indicators.

The paper is organized as follows: in section 1 we address the research relevance, section 2 discusses the theoretical framework, section 3 presents the research hypothesis, and the methodology, section 4 shows the statistical analysis, in section 5 we discuss the results. Finally, in section 6, we conclude with research limitations and findings.

2.Theoretical background

As mentioned previously, the discussion about the interdependence of monetary policies and its components is not new, and we started by checking Tobin's (1978) introduction. Considering the relevance of these policies, we need to understand how the research evolved and which variables are considered as relevant as the researcher's perspective, giving significant contributions for the scientific development of the question - impact of monetary policies in financial indicators. We understand that for example, some economic environments are more developed than others, such as when the GDP is growing, and government policies are only concerned with providing soft intervention. As we all know, we can check that expansion and contraction policies can be observed throughout the years. The main goals of monetary policy (Peiro, 2016; Gambacorta, Shin, 2018; Kwan, Shin, 1999) should be price stability; stability in interest rates; stability in the financial system; economic growth; higher levels of employment and last, but not least, stability in the exchange market.

The role of a Central Bank is to have market interventions leading to different levels of money supply and interest rates in order to produce different results. A Central Bank does not make any intervention related to private market choices, such as where to invest or when to do it, but the mechanisms related to money supply shows us a background, which anyhow will correlate

at different levels. Central Bank policies, regarding money supply to private banking, produce a direct correlation in banks' lending and interest rates definition. Hence, Central Bank's interest rates for private banking has a massive impact on the economy. However, the Central Bank does not control the total level of business directly; it determines private banking access to financing and therefore has a crucial relationship with the economy.

Furthermore, the Central Bank does not influence the total amount of business, and banks need to decide how they want to finance themselves, given that they must keep reserve deposits, which is an amount required by law.

As Tobin (1978) pointed out, the influence of Central Bank decisions can only be determined after some time, due to time difference between its decisions and the time necessary for economic agents to interpret the information and make their decisions accordingly.

Our research aims at addressing a specific problem, which is the importance of monetary policies in stock returns, and in order to do that, we need to see which directions were taken by the academics in previous years. Our belief is that monetary policies have a direct relation with market financial conditions (Jareño, Escribano e Cuenca, 2019) rather than a relationship with demand, although, we should not neglect the importance of economic agent's expectations (Di Maggio, Franzoni, Kermani e Somnavilla, 2019). Considering the massive outcome of the last financial crisis, we witnessed many unconventional monetary policies (Ferreira & Serra, 2019). These policies were implemented as forwarding guidance, meaning that the Central Banks wanted to address damage rather than have a direct correlation functioning. The financial governance wants to make each economic actor responsible for their own decisions and to provide a legal framework where free initiative is interpreted as each agent defends their personal interest if he does not hurt the system. The research in this area must point out (Jiang, 2018) whether the monetary policy role is only to provide guidance for the future or have a considerable intervention in the market.

This model is debatable, as mentioned before by Oliveira & Pacheco (2006) because the monetary policy affects investment decisions, inflation, and employment. Nevertheless, research about how macroeconomic variables have a relation with stock market returns (Jiang, 2018; Nisha, 2015; Zhu, Li e Li, 2014; Hsing, Budden, Phillips, 2012, Rasiah e Ratneswary, 2010), is not a new theme. Hence, we can see a variety of articles addressing the same question, using different macroeconomic variables to explain the relationship. In order to demonstrate the fundamental reason behind the choice of the macroeconomic variables, we made the following table of scientific articles, which include diverse countries on the same topic.

Table 1. Summarize the choice of the Macroeconomic Variables in Different Countries

Author/Date	Country	Macroeconomic Variables
Kwon & Shin (1999)	South Korea	Production
Chaudhuri & Smiles (2006)	Australia	Private consumption- Money supply-Oil prices
Rasiah & Ratneswary (2010)	Malaysia	Exchange rate-Money supply-Private consumption
Rad (2011)	Iran	Oil prices exchange rate-Trade balance Money supply-Industrial
Singh et al. (2011)	Taiwan	Gdp-Unemployment rate-Exchange rate Inflation-Money supply
Erdugan (2012)	Australia	Gdp-Interest rate-Us stock market
Hsing, Budden & Phillips(2012)	Argentina	Gdp-M2 in relation w/ GDP-Exchange rate peso/usd Us stock market
Ibrahim & Musah (2014)	Ghana	Only possible to verify in long term series
Mazurusa (2014)	Zimbabwe	Money supply-Exchange rate-Treasury bills
Humpe & Macmillan(2014)	USA and Japan	The difference in stocks ownership due to legal differences
Ouma & Muriu (2014)	Kenya	Money supply-Exchange rate-Inflation
Barakat, Elgazzar, Hanafy (2015)	Tunisia and Egypt	Consumer prices-Exchange rate-Money supply Interest rate
Nisha (2015)	India	Interest rate-Gold price-Exchange rate-Money supply
Laichena & Obwogi (2015)	Eastern Africa	Interest rate-Industrial production-Money supply
Peiro (2016)	France, Germany, UK	Industrial production-Long term interest rate
Gay (2016)	BRICS	Exchange rate-Oil prices

Source: Author

As we can observe in Table 1, various macroeconomic variables were used in the past to discover the correlation with the financial stock market, which according to the researchers, can explain how in different economies, some variables can make a real difference in the country's economic performance.

3. Research hypothesis and methodology

The main objective is to investigate the relationship between the real stock return with macroeconomic variables and monetary policy and see what conclusions we can make using simple and multiple linear regression.

We checked that previous research as per Table 1 studies particular countries or regions, so we decided to investigate the relation of stock markets with inflation, interest rate, economic growth rate (GDP) and also monetary supply (M1, M2, and M3) using quarterly data time series from a thirty-year period (1989 to 2019) all over the World. We wanted to find out if there was a common ground, in the macroeconomic variables, that could show the immediate relation on the stock market returns.

Firstly, our choice was to make quantitative and descriptive research using reliable indicators to provide a regression, as per Ioannidis & Kontonikas (2006). After the theoretical background, we verified the lack of researchers addressing descriptive statistics, which could give us a more detailed notion regarding macroeconomic policies worldwide in furtherance of obtaining a clear picture and deciding regarding the most reliable indicators for additional development. Subsequently, we initiated data collection, checking which global data basis could provide the same indicator worldwide, regardless of the economy's dimension. Countries and sovereign states were chosen based on the criteria that we would have access to data at least from 2017. Once we decided to include as many countries and sovereign states as possible and considering the economies present at different levels of GDP as well as Economic Development, it was necessary to find common ground in data in order to be able to make comparisons among indicators. Secondly, our choice was to use Thomson Reuters and The Global Economy databases when we checked that it would be challenging to have the same indicators for every country and state. Later, we saw that the best solution would be to use only Thomson Reuters Eikon to avoid any bias. The purpose is to identify macroeconomic variables and find relations with the real stock market return. It is an empirical question of whether principal macroeconomic indicators such as inflation, interest rates, economic growth, and money supply (M1, M2, and M3) are significantly correlated with stock market returns. The question is not new, and several researchers have already worked (Priestley, 2019; Gay, 2016; Ouma &

Muriu, 2014; Kwon & Shin, 1999) using the variables as mentioned above in order to confirm which ones are without any doubt, correlated with stock market returns.

3.1. Research Hypothesis

In order to develop our research hypothesis, we ask the following question: Which macroeconomic variables are positively or negatively correlated with real stock market returns?

3.2. Variables Choice

We started by gathering data available through Thomson Reuters Eikon, by country and state worldwide. As referred earlier, the first step was to verify if the same data were available for all countries and sovereign states, which we later concluded not to be possible. All around the world, national banks do not report data analysis using the same methods. Therefore, it was necessary to make decisions and see if quarterly results were available for everyone. Furthermore, some banks use confidentiality clauses in order to avoid disclosing details of the country's finances. This way, we can conclude that transparency is not a worldwide phenomenon. Our choice was also a consequence of the literature review since, in previous works, we notice that there was no unanimous thinking among financial experts about the most relevant predictors of the monetary policy relation. Being so, we felt the need to include a variety of explanatory variables, which, in our opinion, would contribute towards describing the significance of our model in a more precise way.

Stock Market

Empirical studies show how the stock market and assets react to major economic activities, and the research shows how market performance suffers the influence of several macroeconomic variables. The relevance of the study is, therefore, to determine which ones are more important in each economy. Market indexes provide a broad representative portfolio of investment holdings. In this particular paper, we use the most appropriate and available stock market index for each country or sovereign states, such as stock market index, stock exchange, MSCI index, and also as a proxy, shares, and equity sourced from Central Bank in this priority order

depending on the development level of economies. Therefore, a stock index is used to define the performance of the stock market or a specific portion of it, and to compare returns of investments. Usually, an index uses a weighted average of stock prices, so larger companies count more in the calculation. While the MSCI index is also a measurement of stock market performance, mainly, it selects stocks for its equity indexes that are easily traded and have high liquidity.

Inflation

The inflation concept means an increase in the cost of living as the price of goods and services rise. The rate of inflation measures the quarterly percentage change in the general price level. In this case, all inflation rates were computed through the Consumer Price Index.

Interest Rate

An interest rate is the percentage of principal charged by the lender for the use of its money. The principal is the amount of money lent. Unfortunately, given the fact that Thomson Reuters Eikon has constraints in terms of available data and discontinued, we decided to use one of these interest rate types in a hierarchical order, such as a 3-month Treasury Bill Rate, Government Securities and Treasury Bills, 3-month Interbank rate and also Deposit Rate.

The so-called real interest rate, unlike the nominal rate factors inflation into the equation, to give investors a more accurate measure of their buying power, after they redeem their positions.

GDP as an Economic Growth Rate

GDP per capita is a measure of a country's economic output that accounts for its number of people. It divides the country's gross domestic product by its total population, and it is usually a proper measurement of a country's standard of living.

Money Supply (M1, M2, M3)

M1 or also known as Narrow Money includes coins and notes that are in circulation and other money equivalents that can be converted easily to cash. While M2 includes M1 and, also short-term time deposits in banks and certain money market funds, whereas M3 includes M2 in

addition to long-term deposits. When these variables are estimated in the Multiple Linear Regression, it can cause a Perfect Multi-collinearity Problem.

3.3. Procedures

After using the Thomson Reuters data basis, the next step was to enter data in chronological order since we needed to use information from 1989 to 2019. The values collected were obtained using current prices and then transformed into nominal variation followed by the real variation, which is computed, continuously, by subtracting the inflation rate dividing it by one plus the same inflation rate (dependent and independent, inflation excluded).

The procedure allowed us to build the tables for each variable and have a quarterly time series to each country and sovereign state (124 quarters). As a result, we estimated nine equations, using only real terms, which we will show in the next section, using Ordinary Least Squares estimation considering Newey-West heteroscedasticity and serial correlation consistent covariance matrix estimator. EViews software was used to make these operations. The third step was to compute the tables (as per Attachments 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12) in order to use the essential values to provide relevant statistical information, previously obtained by the OLS estimator.

These procedures made it possible to create a detailed individual analysis, using statistical tools, to provide quantitative and qualitative measures. Hence, it was possible to build up graphics and charts that we used later to make comparisons among different economies. Besides the individual analysis, we aimed to check continental and regional interpretations, considering that we wanted to go further in our research. In section 5, we show the different continents and regions that we considered in our research.

Table 2. Description of Continents and Regions

<i>Continents</i>	<i>Regions</i>
<i>Africa</i>	Central, Eastern, Middle, Northern, Southern, and Western
<i>America</i>	The Caribbean, Central, North, and South
<i>Asia</i>	Central, Eastern, South-Eastern, Southern, and Western
<i>Europe</i>	Balkan, Central, Eastern, Northern, Southern and Western
<i>Oceania</i>	Oceania

4. Data and Statistics

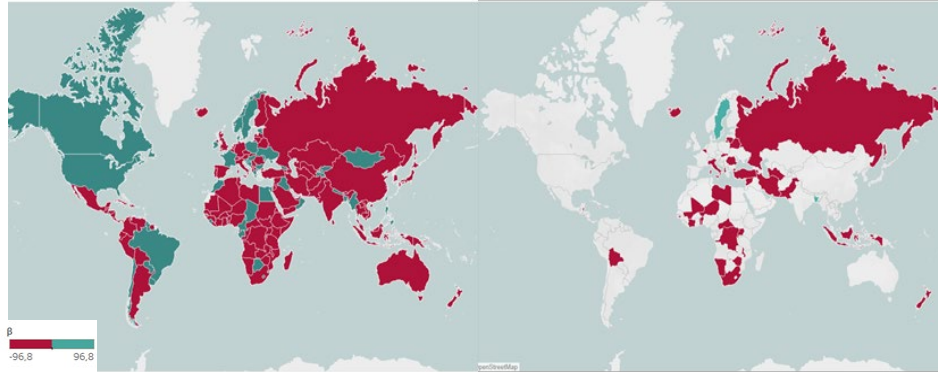
The empirical analysis is conducted by using a quarterly real stock market index since the GDP information is a quarterly measure; also, the explanatory variables from 199 countries and sovereign states over thirty years (1989-2019) were quarterly data. As far as statistics are concerned, our first step was to make the same regression used by Ioannidis & Kontonikas (2006), and consequently, the second procedure was to replicate individual linear regression for each one of the regressors. Finally, we will merge with multiple linear regression, including all indicators. All maps were built using Tableau software 2019.4.

1. Results analysis

5.1. Real Stock Return vs. Inflation

$$(1) \quad sr_t = \alpha + \beta inf_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 1. Sign of the correlation between Real Stock Return and Inflation: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 3 and sub-sections)

World Characteristics

According to the figure above, in which the red and green colours represent negative and positive correlation respectively, we see that the main conclusion of this relationship is negatively correlated worldwide, which has been supported by Gultekin (1983).

In a global sense, the average relation between inflation and the real stock return is negative, with value -0.739 with 50% of its values, ranging from -60.888 to -0.858. The world distribution

of the relation is highly dispersed with a standard deviation of 9.660, exhibiting positive asymmetry, and extreme fat tails. The country with the highest observed positive relation was Guyana with a value of 96.755 (1.78%), and the country with the highest negative relation was Angola, showing a magnitude of 60.888 (0.10%). It was also observed that 17.59% of the countries show statistical significance at 1%, while this percentage rises to 23.62% if we use a significance of 5% and 33.67% if we further increase to 10%. In terms of the R-squared, the world distribution continues to exhibit positive asymmetry but softer fat tails than before with a mean of 6.10%. Notice that the highest fitted model reached an incredible value of 65.76%, which belongs to Comoros.

Continent Characteristics

America is the only continent with a positive average relation of the inflation rate on real stock returns with value 1.457. On the other hand, Africa had the highest negative average relation with a value of -2.452. For the African continent, we can observe that the maximum relation was 24.429 (6.90%) belonging to Sierra Leone, and the minimum was -60.888 that also corresponds to the world's minimum. Otherwise, America had the lowest value in Anguilla with -21.189 (3.25%) and maximum corresponding to the world's maximum. Here we see also huge dispersion with asymmetry and fat tails in all Continents, where in Europe and Africa, we observe negative asymmetry, while for the other Continents, we get positive asymmetry. For the inflation relation, Oceania is the continent with the highest number of countries statistically significant at a 5% level. The continent with the highest dispersion is America, and the lowest dispersion is Oceania. In addition, on average, Oceania and Africa have the best-fitted models for the observed data above the World with 10.13% and 9.26% respectively.

Region Characteristics

Middle Africa had the highest negative average relation with value -11.181, and Western Africa had the highest positive relation of 1.585 in this geographic area. Southern Africa presented the highest percentage of statistically significant inflation rate relations 40% while Northern Africa

had only 20% of countries statistically significant. However, South America was the region with the highest average relation 9.008 and Central America, with the highest negative average relation. It is worthwhile to mention that North America had no statistically significant country, and the Caribbean had the highest percentage of statistically significant countries in this relationship. Moreover, only Southern Asia has a positive correlation with approximately 1.065, whereas the remaining of Asia's regions are negatively correlated. In terms of Europe's regions, we can affirm that Eastern Europe, with 7.31% on average, is the highest fitting model.

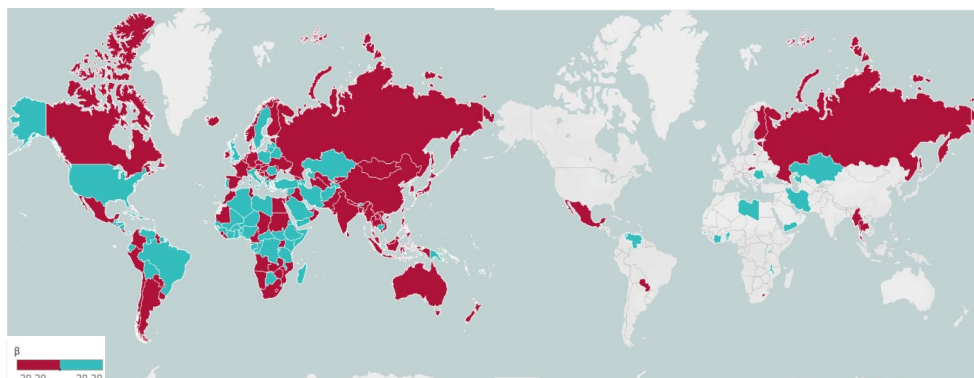
Individual Characteristics

We can observe that the average relationship between the real stock return and the inflation rate has a negative relation with or without considering the 5% significance level corresponding to 69.85% and 93.62%. When we consider the significance level, we can affirm that 44 countries and sovereign states have a strict negative relation on average. Individually, we point out the top five strict negative relations which are Albania, Romania, Iceland, Belgium and Lithuania which corresponds to 13.324 (0.75%), 8.957 (10.72%), 6.893 (26.63%), 6.152 (7.48%) and 5.573 (13.17%) respectively, while only three countries, Sweden, Brunei and Bangladesh, have a strict positive relation with values of 8.754 (27.69%), 6.392 (0.20%) and 3.060 (16.65%) correspondingly. Nevertheless, we can also highlight the three countries that achieved more than 50% of the determination coefficient, which were Comoros, Benin, and Togo.

5.2. Real Stock Return vs. Interest Rate

$$(2) \quad sr_t = \alpha + \beta inf_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 2. Sign of the correlation between Real Stock Return and Interest Rate: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 4 and sub-sections)

World Characteristics

As we see on the map chart (Fig.2), it is hard to predict if the relationship between the real stock return and the interest rate is positive or negative. Genuinely we think in this specific case, and it is inconclusive since it has a tightened percentage between positive and negative in global and strict conditions.

Globally, the average relation of interest rate on the real stock return is negative with -0.101, with 50% of its values, ranging from -38.385 to -0.020. The world distribution of the interest rate relation exhibits negative asymmetry (-3.944) and extreme fat tails (42.322). The country with the highest observed positive relation was the Bahamas with a value of 19.785, and the country with the highest negative relation was Guyana, showing a magnitude of 38.385. Also, it was observed that 8.54% of the countries show statistical significance at 1%, while this percentage rises to 18.09% if we use a significance of 5% and 24.62% if we further increase to 10%. For the standard measure of fitness, we find out an average of 4.74%, reaching the maximum value of 67.60% in Iran.

Continent Characteristics

Results show that America and Asia are the only continents with negative average relation of the interest rate on real stock returns with corresponding values of -0.759 and -0.365. For the American continent, we can observe that the maximum and minimum relation corresponds to the world's maximum and minimum, respectively (the Bahamas and Guyana). Contrarily, Oceania presented the highest positive average relation with a value of 1.421. Across Continents, we observe moderate dispersion with fat tails more pronounced in all Continents except for Oceania. America and Asia are the only continents with negative asymmetry. For the interest rate relation, Oceania is also the continent with the highest number of countries statistically significant at a 5% level of around 53.85%.

Region Characteristics

South America had the highest negative average relation with value -4.399, and Oceania had the highest positive relation 1.421 in this geographic area. Eastern Europe presented the highest percentage of statistically significant inflation rate relations 37.50% whereas the three regions, such as Southern Asia, Southern, and Western Europe, registered no statistically significant countries. Furthermore, Western Africa, Oceania, Western Asia and Eastern Africa presented the highest fitted values above the World's average with corresponding values of 11%, 8.59%, 8.01% and 7.57%, respectively. While the lowest fitted models on average presented R-squared with values of 1.62%, 1.40%, 1.33%, 1.25% belonging to Southern Africa, Western Europe, Central Europe, and Eastern Asia correspondingly.

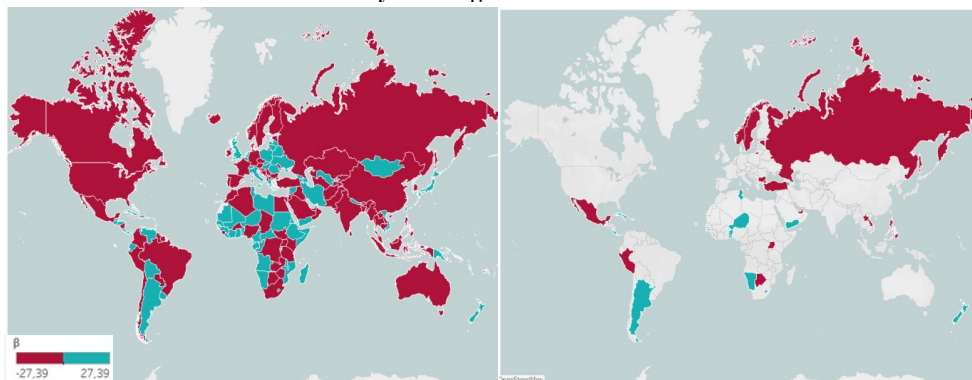
Individual Characteristics

Bermuda, Palau, and Bahrain are the top three positive strict correlations with values of 4.670 (19.92%), 2.945 (44.05%), and 2.838 (23.18%) respectively. Contrarily, Paraguay, Myanmar, and Aruba have the foremost negative strict correlations showing a magnitude of 18.538 (25.85%), 3.866 (16.92%), and 3.759 (6.19%) respectively. In terms of the coefficient of determination, if we consider more than 50%, we can notice once again the same top three countries (Comoros, Benin, and Togo) previously adding Iran and Tuvalu.

5.3. Real Stock Return vs. First Difference in Interest Rate

$$(3) \quad sr_t = \alpha + \beta \Delta ir_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 3. Sign of the correlation between Real Stock Return and the First Difference of Interest Rate: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 5 and sub-sections)

World Characteristics

In what concerns the average relation of changes in the first difference of interest rate on the real stock return, assuming that interest rate is not stationarity, is positive with value 0.019 with 50% of its values, ranging from -19.440 to -0.002. The world distribution of this relation is somewhat dispersed with a standard deviation of 3.879, range 46.832 exhibiting positive asymmetry 1.488 and extreme fat tails 18.950. The country with the highest observed positive relation was Equatorial Guinea with a value of 27.392 (0.14%), and the country with the highest negative relation was Haiti, showing a magnitude of 19.440 (13.63%). It was also observed that 12.06% of the countries show statistical significance at 1%, while this percentage rises to 20.10% if we use a significance of 5% and 26.63% if we further increase to 10%.

Continent Characteristics

Concerning the average relation of the first changes in the interest rate, Oceania is the continent with the highest positive average relation on stock returns with a value of 0.977. On the other hand, Asia had the highest negative average relation with a value of -0.765. For the Oceania continent, we can observe that the maximum relation was 7.855 (1.93%) belonging to the Marshall Islands and the minimum was -6.038 (1.46%) that corresponds to the Solomon Islands. Asia had the lowest value in the United Arab Emirates with -5,298 (13.77%), and the maximum was 2.806 (0.38%) corresponding to Mongolia. In terms of dispersion, we can observe a negative asymmetry in America, Asia, and Europe, with fat tails in all Continents except for Europe, where the correlation is close to zero.

Moreover, the continent with the highest dispersion is America, and with the lowest dispersion is Asia. For the changes in the interest rate relation, Oceania is the continent with the highest number of countries statistically significant at a 5% level and the Continent with the lowest is Asia with only 14.29% of countries having significance. Asia and Europe stay below the average World concerning the goodness of fit.

Region Characteristics

South America had the highest negative average relation with a value of -2.128, and Middle Africa had the highest negative relation with a value of 3.023. Southern Africa and Northern Europe presented the two highest percentages of statistical significance at a 5% level of significance, 60% and 40% respectively. On the other hand, we notice that there are four regions, Central and Southern Europe, Southern Africa, and Central Asia, following a platykurtic distribution. Western Africa presents a 9.17% the region with the best standard fit.

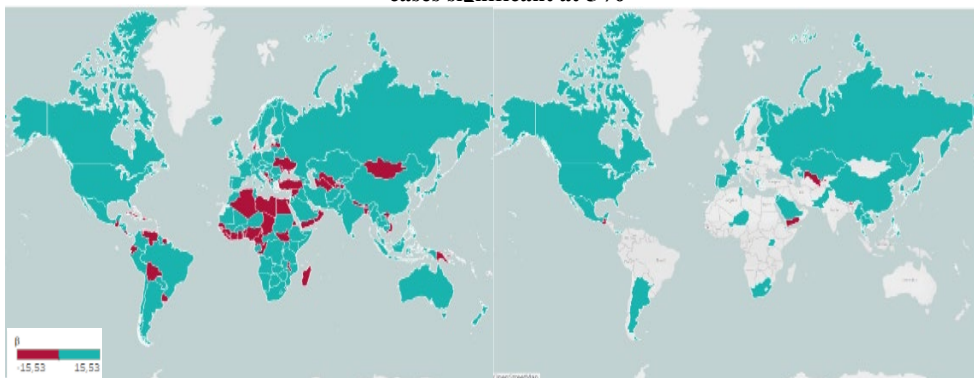
Individual Characteristics

Individually, we can highlight the top five strict relationships in two opposite sides, first the positive relation, we have Cuba 9.683 (20.74%), Marshall Islands 7.855 (1.93%), Bermuda 7.042 (51.78%), Costa Rica 5.346 (0.68%) and Tunisia 3.416 (14.85%), and second, the negative relation set by the United Arab Emirates 5.298 (13.77%), Peru 4.525 (30.07%), Russian Federation 4.231 (35.51%), Sweden 3.596 (11.26%) and Aruba 3.471 (9.90%). Comoros submits the best result in terms of the determination coefficient.

5.4. Real Stock Return vs Real Economic Growth Rate (GDP)

$$(4) \quad sr_t = \alpha + \beta gdp_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 4. Sign of the correlation between Real Stock Return and Real Economic Growth Rate: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 6 and sub-sections)

World Characteristics

We can affirm that a positive correlation can be established confidently between the real economic growth rate and the real stock market, illustrated in Figure 4. Since it occurs in 129 of the 199 countries and sovereign states. The average correlation of GDP on the real stock return is positive, with value 0.633 with 50% of its values, ranging from -15.533 to 0.265. The world distribution of this relation is somewhat dispersed with a standard deviation of 2.869 and range 28.613 exhibiting negative asymmetry -0.486 and fat tails 9.574, so it follows a leptokurtic distribution. The country with the highest observed positive relation was the Democratic Republic of Congo with a value of 13.079, and the country with the highest negative relation was the Bahamas, showing a magnitude of 15.533. It was also seen that 13.07% of the countries show statistical significance at 1%, while this percentage rises to 23.12% if we use a significance of 5% and 32.16% if we further increase to 10%. 3.55% represents the global goodness of fit.

Continent Characteristics

Europe is the continent with the highest positive average relationship in these two variables with value 1.886. On the other hand, Oceania had the highest negative average relation with a value of -0.243. Asia represents the continent with the best result of the goodness of fit.

Region Characteristics

North America has the highest positive average relation with a magnitude of 3.654 and, on the negative side, Southern Africa corresponding to -0.993. It can be deduced that just four regions characterise a negative relationship, i.e., Southern Africa, the Caribbean, Central America, and Oceania, which fundamentals our initial perspective.

Individual Characteristics

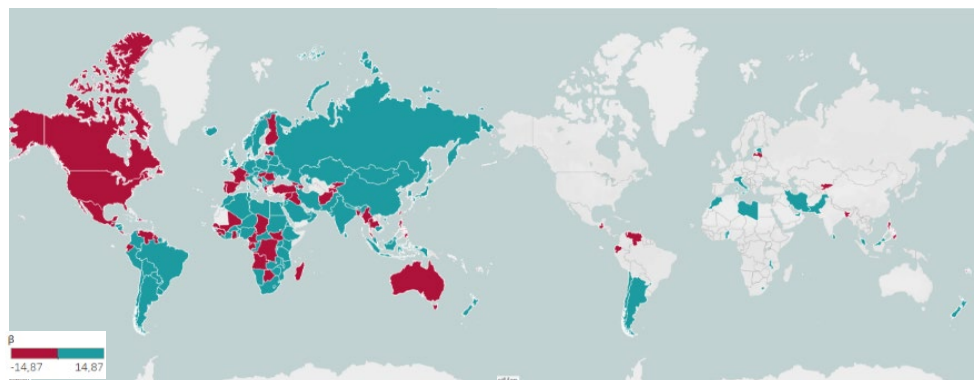
France, Laos, South Korea, China, and the Czech Republic are all statistically significant, with the highest positive correlation in decreasing order and 13.23% of R-squared on average. Additionally, Laos, as an emerging economy, reflects the best-fitted model, which supports the

idea that in emergent economies, the effect of these macroeconomic variables has great explanatory power in the financial stock market returns. The potential seven countries, which the highest goodness of fit, are Uzbekistan, Laos, Mexico, Guatemala, South Korea, United States of America and Kiribati with values of 37.63%, 27.94%, 21.12%, 20.79%, 15.84%, 15.72% and 15.53%, respectively.

5.5. Real Stock Return vs Real Money Supply 1

$$(5) \quad sr_t = \alpha + \beta m1_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 5. Sign of the correlation between Real Stock Return and Real Money Supply 1: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 7 and sub-sections)

World Characteristics

Although the average relation of the Money supply 1, which is the most liquid of the three money supplies, with the real stock return is negative, we can observe from the map that the number of countries and sovereign states with a positive correlation is higher than the negative ones. It also indicates that 12.92% of the countries show statistical significance at 1%, while this percentage rises to 17.98% if we use a significance of 5% and 25.28% if we further increase to 10%.

Continent Characteristics

All continents, excluding Oceania, possess a negative asymmetric and leptokurtic distribution. However, Oceania has the highest dispersion and Europe the lowest dispersion of values of the relation between Money supply M1 and the real stock returns. Asia and Africa, on average, have the goodness of fit superior to the remaining continents and the World.

Region Characteristics

It is worth mentioning that Northern Africa achieves the half-percentage at a significance level of 5%. Every region of Europe and unique Oceania show a positive correlation among these variables. Central America exhibits the highest negative average relation of all regions in the World with a magnitude of 2.063. Southern Africa, on the other hand, achieved the highest average positive relation with a value of 1.342.

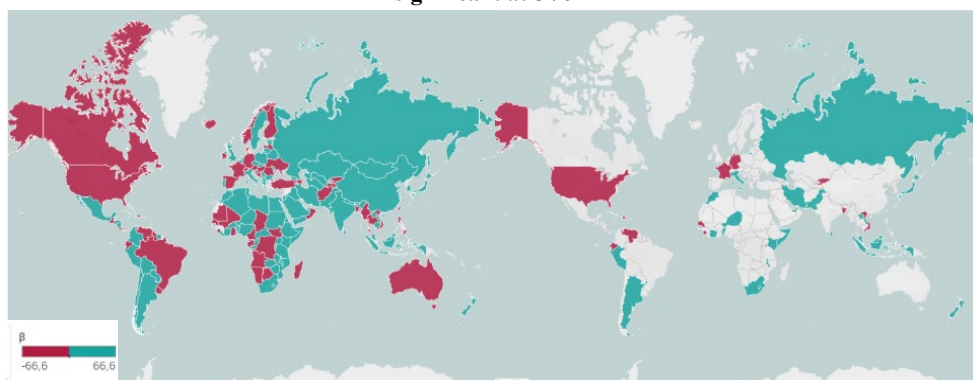
Individual Characteristics

In terms of individual interpretation, we can highlight the top five highest positive average relations of Paraguay, Republic of Congo, Mozambique, Nicaragua, and Montenegro. In the inverse order, Guyana, Democratic Republic of Congo, Angola, Dominican Republic, and Madagascar are the countries with the top five negative relations. The best three fitted models with around 50% and also significant at 5% in order are Iran Togo and Benin. At a 5% level of significance, Malaysia, Pakistan Singapore have the highest relation while Kyrgyzstan, Ecuador and Latvia have the lowest.

5.6. Real Stock Return vs Real Money Supply 2

$$(6) \quad sr_t = \alpha + \beta m2_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 6. Sign of the correlation between Real Stock Return and Real Money Supply 2: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 8 and sub-sections)

World Characteristics

As the previous statement in Money Supply 1, again, there is a higher number of positive relations between the real money supply 2 and real stock returns. Despite this, it reflects a lower value in terms of the average on this relationship, but the coefficient of determination increases to 5.13% on average.

Continent Characteristics

Africa and America continue to have a negative correlation with negative skewness and high kurtosis. Likewise, Oceania has the most statistical significance at all levels deemed, but this time it is surpassed by Africa in terms of the level of dispersion across Continents. Europe has the highest positive average relation of the Money supply (M2) on the real stock return but having at the same time on average the lowest level of fit of all Continents.

Region Characteristics

As before the Oceanic region continues to reveal the positive average relationship, whereas one of the European regions, especially Northern Europe, moved from an average to a negative value. Currently, the best-fitted model occurs in Western Africa. The Caribbean is the region with the highest negative effect, while Balkans is the region with the highest positive effect of Money Supply 2 on the real stock return.

Individual Characteristics

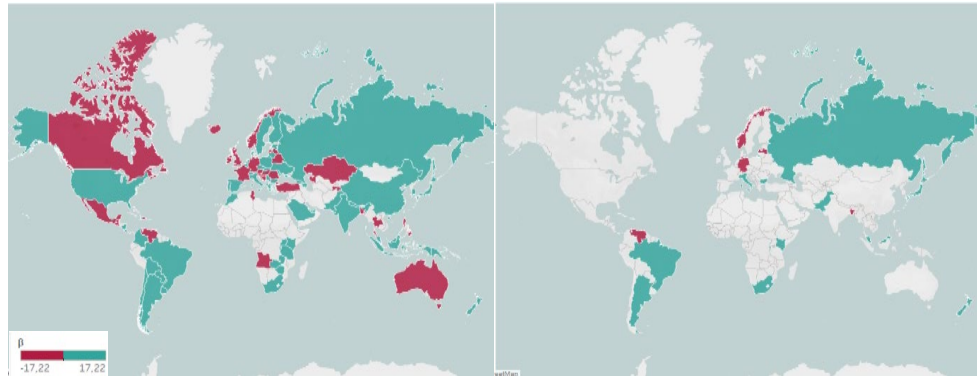
Albania, Paraguay, Republic of Congo, Antigua and Barbuda and Hong Kong present the highest correlation rates, although when we consider a 5% level of significance, only Hong Kong reaches the top relation followed by Japan, Montenegro, Sri Lanka, and Singapore and the remaining are excluded. Additionally, we can mention the countries or sovereign states who have the top five negative average relations on this relation, Guyana, Bermuda, the Dominican Republic, Angola and the Bahamas. Even though only the Dominican Republic remains at a 5% level followed by Sierra Leone, Bangladesh, United States of America and Ecuador.

Regarding the previous relation, between money Supply 1 with Real Stock Return, the top three fitted are the same but with an extra percentage (from around 50% to 60%).

5.7. Real Stock Return vs Real Money Supply 3

$$(7) \quad sr_t = \alpha + \beta m3_t + \varepsilon_t, t = 1, 2, \dots, 124$$

Figure 7. Sign of the correlation between Real Stock Return and Real Money Supply 2: all cases and only cases significant at 5%



Source: Author using Tableau 2019.4

(Attachment 9 and sub-sections)

World Characteristics

These two pictures show clear evidence of a positive relationship between the two variables which have previously been recovered in the case of money supply 1 and 2. It should be remarked that only 100 countries and sovereign states have this variable available, given the fact that perhaps an inexistence of this variable in the rest of the economies. In a global sense, the average relation of money supply M3 on the real stock return is close to zero (around 0.05) with 50% of its values, ranging from -17.218 to 0.219. The global distribution of the relation is highly dispersed, exhibiting positive asymmetry and highly leptokurtic. The country with the highest observed positive relation was Uruguay presenting a magnitude of 9.36, and the country with the highest negative relation was the Dominican Republic, showing a magnitude of 17.218. Furthermore, we found that the standard deviation of the world distribution is around 2,549 units, showing a moderate dispersion. It was also declared that 12% of the countries show statistical significance at 1%, while this percentage rises to 22% if we use a significance of 5% and 28% if we further increase to 10%.

Continent Characteristics

The continents with the highest positive average relation were Asia and Europe, with values of 0.286 and 0.159, respectively. On the other hand, Africa and America had the highest negative average relation, with values of -0.302 and -0.143. Oceania also had a negative average relation of magnitude of 0.123. For the African continent, we can observe that the maximum relation was 1.34, and the minimum was -9.58 with a standard deviation of 2.801. The distribution of the average relation in Africa exhibits negative asymmetry and fat tails. Africa is the continent with the highest number of countries statistically significant at a 5% level. The continent with the highest dispersion is America and the one with the lowest dispersion is Asia.

Region Characteristics

Firstly, there is no data available for Western Africa with regards to the relationship between the real stock and money supply ³. Regarding the concept of statistical significance at 5% level, the two top results occur in Southern Africa with 100%, given the fact that South Africa is the only country with this variable, and also with 33.33% Southern Europe including Malta and Italy. Additionally, Southern Asia evidences an R-squared of 8.10% on average, being an over-the-top outlier.

Individual Characteristics

Assuming all cases, we can highlight the top five countries with the best positive average relation between these two variables, which are Uruguay, Paraguay, Haiti, Hong Kong and Papua New Guinea with 9.36%, 3.67%, 2.77%, 2.72%, 2.54% respectively. In the opposite direction, the Dominican Republic, Angola, the Bahamas, the Solomon Islands and Tajikistan show evidence at the highest negative relations. Note that the best three fitted models, for the observed data, in this case, are the Dominican Republic, Hong Kong and Malta, with values of 21.61%, 18.31% and 17.09%, respectively. Now assuming only cases at a significance level of 5%, we observed that only 22% of 100 countries and sovereign states, in which Europe and

Asia are tight with 7% of 22%. Then, we can verify that Hong Kong is once again, on the top five positive relations, along with Brazil, Pakistan, Singapore and Malaysia.

5.8. Real Stock Return vs Macroeconomic Variables (Multiple Regression)

Consider, the first equation, assuming all variables, including the interest rate, are integrated of order 0,

$$(8) \quad sr_t = \alpha + \beta ir_t + \lambda inf_t + \delta gdp_t + \theta_1 \beta m1_t + \theta_2 m2_t + \theta_3 m3_t + \varepsilon_t, t = 1, 2, \dots, 124$$

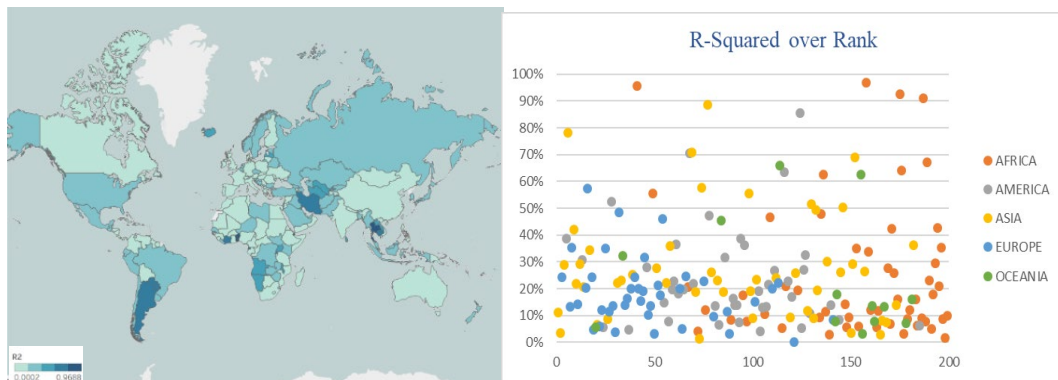
(Attachment 10)

The Second equation, assuming the interest rate is integrated of order 1, and the remaining variables are integrated of order 0,

$$(9) \quad sr_t = \alpha + \beta \Delta ir_t + \lambda inf_t + \delta gdp_t + \theta_1 \beta m1_t + \theta_2 m2_t + \theta_3 m3_t + \varepsilon_t, t = 1, 2, \dots, 124$$

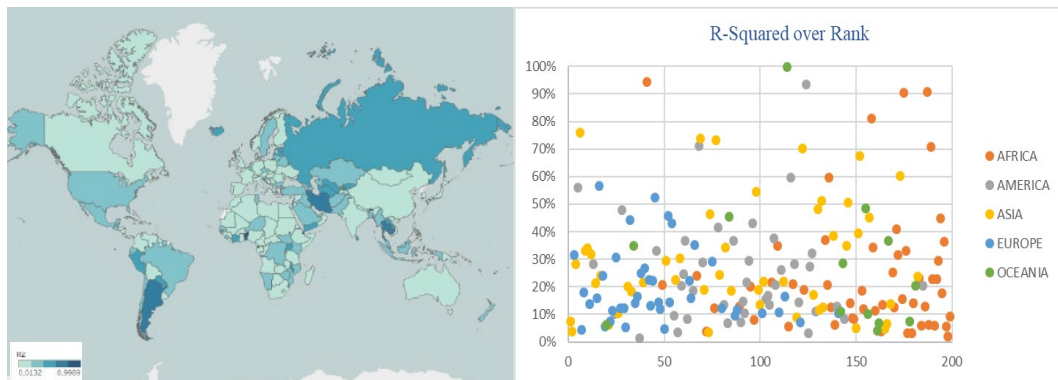
(Attachment 11)

Figure 8. Goodness of Fit Level for the Eq. (8) according to rank sourced by Central Intelligence Agency till 2017



Source: Author using Tableau 2019.4

Figure 9. Goodness of Fit Level for the Eq. (9) according to rank sourced by Central Intelligence Agency till 2017



Source: Author using Tableau 2019.4

In the first model (Eq. (8)), the countries or the sovereign states with the highest goodness of fit are Djibouti, Equatorial Guinea, Benin, Togo, Thailand, Montserrat, Brunei, Iran, Argentina, and Cambodia in decreasing order, being the first four African countries which lead us to think that there are some connection and a pattern between the level of development of the economy (according to the rank provided from Central Intelligence Agency (1993-2017) and the model's goodness of fit. Although there is no clear relationship between the R-squared and the level of development of the country, we can observe that Europe does not register large values of R-squared when compared with Asia and Africa.

Similar to what happened in the first model, we verified, in the second model (Eq. (9)), that nine of the countries or sovereign states are once again the best-fitted for the observed data replacing Cambodia with Fiji.

Nonetheless, it is also essential to refer that it can be explained for the fact that both cases, the average of observations were 8.5 quarters. When we consider a high number of observations like 123 quarters, the goodness of fit on average is around 11%.

According to Attachment 12, we notice that the average goodness of fit is 24.13%, which shows diversified levels depending on the level of development of the economies according to the rank designed. This rank was GDP per Capita sourced from the Central Intelligence Agency till 2017, which considers Qatar as one of the countries with the most abundant natural gas and oil reserves of the world as the top one of the rank and the last of the rank Somalia. The goodness of fit in the multiple regression of the G7 countries, Europe and also the two biggest size-populated-countries, China and India, have lower values of R-Squared (below 23%) when comparing with the under-development economies, e.g., Djibouti, Benin, Togo and others, located in some regions in all Continents excluding Europe (above 70%).

6. Limitations and Final Conclusions

All around the world, national banks do not report data analysis, using the same methods. Furthermore, some banks use confidentiality clauses in order to avoid showing detailed

information about the country's finances. This way, we can conclude that transparency is not a worldwide phenomenon. Globally we found that the relation between the stock market and inflation represents a significant relevance, with negative correlation, which supports previous empirical research at the World level. The relation between the interest rate and the stock market is inconclusive, as it can be either positive or negative, depending on the real economy. Overall, we found evidence of positive relationships in the remaining variables, such as economic growth rate and all money supplies with the stock market, showing values of around 70%. Generally, we gave detailed descriptive statistics and discovered a diversity of distributions in terms of global, continental, regional, and individual perspectives.

One of the investigation relevance was to clarify that the goodness of fit in the emerging economies have better results against the developed when we consider an individual and multiple macroeconomic indicators on the stock market and, consequently, we are delighted to underline this because we made it sustainably, obviously with some exceptional cases.

Finally, in section 5.8., we highlighted that more developed economies require more macroeconomic indicators than the six variables implemented to explain their financial stock market returns than the under-developed economies, also reinforced by some authors that are included in Table. The six macroeconomic variables seem to be sufficient to explain the correlation between the financial stock market of the under-developed countries.

However, there were some limitations, since it was not possible to verify the stationarity of all variables using the Unit-Root test (e.g., Augmented Dickey-Fuller) as well as the existence of endogenous variables, which could imply the need for new methods of estimation. Also, the lack of data in some countries and sovereign states results in a non-continuous and constrained analysis or the possibility of not having informational efficiency.

For further research, we would like to address individual empirical studies to prevent limitations as stated previously, and we believe it would be valuable to use cluster analysis, which would provide ways to group economies with similar characteristics.

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Attachments

Country	Continent	Region	Rank
AFGHANISTAN	ASIA	SOUTHERN ASIA	182
ALBANIA	EUROPE	BALKAN	101
ALGERIA	AFRICA	NORTHERN AFRICA	89
ANGOLA	AFRICA	MIDDLE AFRICA	135
ANGUILLA	AMERICA	CARIBBEAN	104
ANTIGUA & BARBUDA	AMERICA	CARIBBEAN	57
ARGENTINA	AMERICA	SOUTH AMERICA	68
ARMENIA	ASIA	WESTERN ASIA	119
ARUBA	AMERICA	CARIBBEAN	59
AUSTRALIA	OCEANIA	OCEANIA	20
AUSTRIA	EUROPE	CENTRAL EUROPE	23
AZERBAIJAN	ASIA	WESTERN ASIA	79
BAHAMAS	AMERICA	CARIBBEAN	60
BAHRAIN	ASIA	WESTERN ASIA	17
BANGLADESH	ASIA	SOUTHERN ASIA	151
BARBADOS	AMERICA	CARIBBEAN	78
BELARUS	EUROPE	EASTERN EUROPE	75
BELGIUM	EUROPE	WESTERN EUROPE	25
BELIZE	AMERICA	CENTRAL AMERICA	126
BENIN	AFRICA	WESTERN AFRICA	175
BERMUDA	AMERICA	CARIBBEAN	5
BHUTAN	ASIA	SOUTHERN ASIA	122
BOLIVIA	AMERICA	SOUTH AMERICA	129
BOSNIA & HERZEGOVINA	EUROPE	BALKAN	110
BOTSWANA	AFRICA	SOUTHERN AFRICA	76
BRAZIL	AMERICA	SOUTH AMERICA	86
BRUNEI	ASIA	SOUTH-EASTERN ASIA	6
BULGARIA	EUROPE	BALKAN	66

BURKINA FASO	AFRICA	WESTERN AFRICA	180
BURUNDI	AFRICA	EASTERN AFRICA	197
CAMBODIA	ASIA	SOUTH-EASTERN ASIA	152
CAMEROON	AFRICA	MIDDLE AFRICA	160
CANADA	AMERICA	NORTH AMERICA	24
CAPE VERDE	AFRICA	WESTERN AFRICA	134
CAYMAN ISLANDS	AMERICA	CARIBBEAN	28
CENTRAL AFRICAN REPUBLIC	AFRICA	MIDDLE AFRICA	198
CHAD	AFRICA	MIDDLE AFRICA	170
CHILE	AMERICA	SOUTH AMERICA	61
CHINA	ASIA	EASTERN ASIA	85
COLOMBIA	AMERICA	SOUTH AMERICA	92
COMOROS	AFRICA	EASTERN AFRICA	189
COSTA RICA	AMERICA	CENTRAL AMERICA	81
CROATIA	EUROPE	BALKAN	63
CUBA	AMERICA	CARIBBEAN	107
CURACAO	AMERICA	CARIBBEAN	90
CYPRUS	EUROPE	SOUTHERN EUROPE	38
CZECH REPUBLIC	EUROPE	CENTRAL EUROPE	40
DEMOCRATIC REPUBLIC OF CONGO	AFRICA	MIDDLE AFRICA	196
DENMARK	EUROPE	NORTHERN EUROPE	22
DJIBOUTI	AFRICA	EASTERN AFRICA	158
DOMINICA	AMERICA	CARIBBEAN	105
DOMINICAN REPUBLIC	AMERICA	CARIBBEAN	83
EAST TIMOR	ASIA	SOUTH-EASTERN ASIA	146
ECUADOR	AMERICA	SOUTH AMERICA	111
EGYPT	AFRICA	NORTHERN AFRICA	97
EL SALVADOR	AMERICA	CENTRAL AMERICA	120
EQUATORIAL GUINEA	AFRICA	MIDDLE AFRICA	41

ERITREA	AFRICA	EASTERN AFRICA	191
ESTONIA	EUROPE	EASTERN EUROPE	45
ETHIOPIA	AFRICA	EASTERN AFRICA	177
FIJI	OCEANIA	OCEANIA	114
FINLAND	EUROPE	NORTHERN EUROPE	27
FRANCE	EUROPE	WESTERN EUROPE	29
GABON	AFRICA	MIDDLE AFRICA	72
GAMBIA	AFRICA	WESTERN AFRICA	186
GEORGIA	ASIA	WESTERN ASIA	112
GERMANY	EUROPE	CENTRAL EUROPE	19
GHANA	AFRICA	WESTERN AFRICA	147
GREECE	EUROPE	SOUTHERN EUROPE	53
GRENADA	AMERICA	CARIBBEAN	91
GUATEMALA	AMERICA	CENTRAL AMERICA	127
GUINEA	AFRICA	WESTERN AFRICA	179
GUINEA-BISSAU	AFRICA	WESTERN AFRICA	184
GUYANA	AMERICA	SOUTH AMERICA	125
HAITI	AMERICA	CARIBBEAN	185
HONDURAS	AMERICA	CENTRAL AMERICA	144
HONG KONG	ASIA	EASTERN ASIA	12
HUNGARY	EUROPE	CENTRAL EUROPE	50
ICELAND	EUROPE	NORTHERN EUROPE	16
INDIA	ASIA	SOUTHERN ASIA	131
INDONESIA	ASIA	SOUTH-EASTERN ASIA	102
IRAN	ASIA	WESTERN ASIA	69
IRAQ	ASIA	WESTERN ASIA	82
IRELAND	EUROPE	WESTERN EUROPE	7
ISRAEL	ASIA	WESTERN ASIA	39
ITALY	EUROPE	SOUTHERN EUROPE	36

IVORY COAST	AFRICA	WESTERN AFRICA	136
JAMAICA	AMERICA	CARIBBEAN	118
JAPAN	ASIA	EASTERN ASIA	31
JORDAN	ASIA	WESTERN ASIA	100
KAZAKHSTAN	ASIA	CENTRAL ASIA	58
KENYA	AFRICA	EASTERN AFRICA	159
KIRIBATI	OCEANIA	OCEANIA	181
KOSOVO	EUROPE	BALKAN	113
KUWAIT	ASIA	WESTERN ASIA	9
KYRGYZSTAN	ASIA	CENTRAL ASIA	157
LAOS	ASIA	SOUTH-EASTERN ASIA	130
LATVIA	EUROPE	EASTERN EUROPE	54
LEBANON	ASIA	WESTERN ASIA	71
LESOTHO	AFRICA	SOUTHERN AFRICA	154
LIBERIA	AFRICA	WESTERN AFRICA	195
LIBYA	AFRICA	NORTHERN AFRICA	117
LITHUANIA	EUROPE	EASTERN EUROPE	44
LUXEMBOURG	EUROPE	WESTERN EUROPE	3
MACAU	ASIA	EASTERN ASIA	2
MADAGASCAR	AFRICA	EASTERN AFRICA	188
MALAWI	AFRICA	EASTERN AFRICA	194
MALAYSIA	ASIA	SOUTH-EASTERN ASIA	51
MALDIVES	ASIA	SOUTHERN ASIA	73
MALI	AFRICA	WESTERN AFRICA	174
MALTA	EUROPE	SOUTHERN EUROPE	32
MARSHALL ISLANDS	OCEANIA	OCEANIA	161
MAURITANIA	AFRICA	WESTERN AFRICA	149
MAURITIUS	AFRICA	EASTERN AFRICA	67
MEXICO	AMERICA	NORTH AMERICA	70

MICRONESIA	OCEANIA	OCEANIA	162
MOLDOVA	EUROPE	EASTERN EUROPE	141
MONGOLIA	ASIA	EASTERN ASIA	99
MONTENEGRO	EUROPE	BALKAN	80
MONTSERRAT	AMERICA	CARIBBEAN	124
MOROCCO	AFRICA	NORTHERN AFRICA	123
MOZAMBIQUE	AFRICA	EASTERN AFRICA	192
MYANMAR	ASIA	SOUTH-EASTERN ASIA	138
NAMIBIA	AFRICA	SOUTHERN AFRICA	109
NEPAL	ASIA	SOUTHERN ASIA	168
NETHERLANDS	EUROPE	WESTERN EUROPE	15
NEW ZEALAND	OCEANIA	OCEANIA	34
NICARAGUA	AMERICA	CENTRAL AMERICA	140
NIGER	AFRICA	WESTERN AFRICA	193
NIGERIA	AFRICA	WESTERN AFRICA	139
NORTH MACEDONIA	EUROPE	BALKAN	88
NORWAY	EUROPE	NORTHERN EUROPE	8
OMAN	ASIA	WESTERN ASIA	26
PAKISTAN	ASIA	SOUTHERN ASIA	145
PALAU	OCEANIA	OCEANIA	84
PALESTINE	ASIA	WESTERN ASIA	150
PANAMA	AMERICA	CENTRAL AMERICA	62
PAPUA NEW GUINEA	OCEANIA	OCEANIA	156
PARAGUAY	AMERICA	SOUTH AMERICA	116
PERU	AMERICA	SOUTH AMERICA	96
PHILIPPINES	ASIA	SOUTH-EASTERN ASIA	128
POLAND	EUROPE	CENTRAL EUROPE	48
PORTUGAL	EUROPE	SOUTHERN EUROPE	47
PUERTO RICO	AMERICA	CARIBBEAN	37

QATAR	ASIA	WESTERN ASIA	1
REPUBLIC OF CONGO	AFRICA	MIDDLE AFRICA	137
ROMANIA	EUROPE	EASTERN EUROPE	64
RUSSIAN FEDERATION	EUROPE	EASTERN EUROPE	52
RWANDA	AFRICA	EASTERN AFRICA	176
SAINT KITTS AND NEVIS	AMERICA	CARIBBEAN	55
SAINT LUCIA	AMERICA	CARIBBEAN	94
SAINT VINCENT AND THE GRENADINES	AMERICA	CARIBBEAN	108
SAMOA	OCEANIA	OCEANIA	142
SAO TOME AND PRINCIPE	AFRICA	MIDDLE AFRICA	164
SAUDI ARABIA	ASIA	WESTERN ASIA	14
SENEGAL	AFRICA	WESTERN AFRICA	169
SERBIA	EUROPE	BALKAN	87
SEYCHELLES	AFRICA	EASTERN AFRICA	49
SIERRA LEONE	AFRICA	WESTERN AFRICA	183
SINGAPORE	ASIA	SOUTH-EASTERN ASIA	4
SLOVAKIA	EUROPE	CENTRAL EUROPE	43
SLOVENIA	EUROPE	CENTRAL EUROPE	42
SOLOMON ISLANDS	OCEANIA	OCEANIA	178
SOMALIA	AFRICA	EASTERN AFRICA	199
SOUTH AFRICA	AFRICA	SOUTHERN AFRICA	95
SOUTH KOREA	ASIA	EASTERN ASIA	33
SOUTH SUDAN	AFRICA	EASTERN AFRICA	190
SPAIN	EUROPE	SOUTHERN EUROPE	35
SRI LANKA	ASIA	SOUTHERN ASIA	98
SUDAN	AFRICA	EASTERN AFRICA	148
SURINAME	AMERICA	SOUTH AMERICA	93
SWAZILAND	AFRICA	SOUTHERN AFRICA	115
SWEDEN	EUROPE	NORTHERN EUROPE	18

SWITZERLAND	EUROPE	CENTRAL EUROPE	11
SYRIA	ASIA	WESTERN ASIA	166
TAIWAN	ASIA	EASTERN ASIA	21
TAJIKISTAN	ASIA	CENTRAL ASIA	165
TANZANIA	AFRICA	EASTERN AFRICA	163
THAILAND	ASIA	SOUTH-EASTERN ASIA	77
TOGO	AFRICA	WESTERN AFRICA	187
TONGA	OCEANIA	OCEANIA	143
TRINIDAD & TOBAGO	AMERICA	CARIBBEAN	46
TUNISIA	AFRICA	NORTHERN AFRICA	106
TURKEY	ASIA	WESTERN ASIA	56
TURKMENISTAN	ASIA	CENTRAL ASIA	74
TUVALU	OCEANIA	OCEANIA	155
UGANDA	AFRICA	EASTERN AFRICA	171
UKRAINE	EUROPE	EASTERN EUROPE	121
UNITED ARAB EMIRATES	ASIA	WESTERN ASIA	10
UNITED KINGDOM	EUROPE	WESTERN EUROPE	30
UNITED STATES OF AMERICA	AMERICA	NORTH AMERICA	13
URUGUAY	AMERICA	SOUTH AMERICA	65
UZBEKISTAN	ASIA	CENTRAL ASIA	132
VANUATU	OCEANIA	OCEANIA	167
VENEZUELA	AMERICA	SOUTH AMERICA	103
VIETNAM	ASIA	SOUTH-EASTERN ASIA	133
YEMEN	ASIA	WESTERN ASIA	173
ZAMBIA	AFRICA	EASTERN AFRICA	153
ZIMBABWE	AFRICA	EASTERN AFRICA	172

Attachment 2 – Identification of Stock Market Index and Macroeconomic Variables – available for each indicator

Country	Stock Market	CPI	Interest Rate	GDP	M1	M2	M3
AFGHANISTAN	Afghanistan Stock Exchange	YES	YES	YES	YES	YES	NO
ALBANIA	Tirana Stock Exchange	YES	YES	YES	YES	YES	YES
ALGERIA	Algiers Stock Exchange	YES	YES	YES	YES	YES	NO
ANGOLA	Angola Stock Exchange	YES	YES	YES	YES	YES	YES
ANGUILLA	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO
ANTIGUA & BARBUDA	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO
ARGENTINA	MSCI Argentina	YES	YES	YES	YES	YES	YES
ARMENIA	Armenia Securities Exchange	YES	YES	YES	YES	YES	NO
ARUBA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
AUSTRALIA	Australian Securities Exchange	YES	YES	YES	YES	YES	YES
AUSTRIA	Austrian Traded Index	YES	YES	YES	YES	YES	YES
AZERBAIJAN	Baku Stock Exchange	YES	YES	YES	YES	YES	YES
BAHAMAS	Bahamas Securities Exchange	YES	YES	YES	YES	YES	YES
BAHRAIN	Bharain Stock Exchange	YES	YES	YES	YES	YES	YES
BANGLADESH	Dhaka Stock Exchange	YES	YES	YES	YES	YES	YES
BARBADOS	Barbados Stock Exchange	YES	YES	YES	YES	YES	NO
BELARUS	Belarusian Currency & Stock Exchange	YES	YES	YES	YES	YES	YES
BELGIUM	BEL 20	YES	YES	YES	YES	YES	YES

BELIZE	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
BENIN	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
BERMUDA	Bermuda Stock Exchange	YES	YES	YES	NO	YES	NO
BHUTAN	Royal Securities Exchange of Bhutan	YES	YES	YES	YES	YES	NO
BOLIVIA	Bolsa Nacional de Valores	YES	YES	YES	YES	YES	YES
BOSNIA & HERZEGOVINA	Sarajevo Stock Exchange	YES	YES	YES	YES	YES	YES
BOTSWANA	Botswana Stock Exchange	YES	YES	YES	YES	YES	NO
BRAZIL	Bovespa Index	YES	YES	YES	YES	YES	YES
BRUNEI	Central Bank: Shares and Equity	YES	YES	YES	YES	NO	NO
BULGARIA	SOFIX	YES	YES	YES	YES	YES	YES
BURKINA FASO	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
BURUNDI	Bourse des Valeurs Mobilières de l'Afrique Centrale	YES	YES	YES	YES	YES	YES
CAMBODIA	Cambodia Securities Exchange	YES	YES	YES	YES	YES	NO
CAMEROON	Douala Stock Exchange	YES	YES	YES	YES	YES	NO
CANADA	S&P/TSX 60 Index	YES	YES	YES	YES	YES	YES
CAPE VERDE	Bolsa de Valores de Cabo Verde	YES	YES	YES	YES	YES	NO
CAYMAN ISLANDS	Cayman Islands Stock Exchange	YES	YES	YES	YES	YES	NO
CENTRAL AFRICAN REPUBLIC	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
CHAD	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO

CHILE	Santiago Stock Exchange	YES	YES	YES	YES	YES	YES
CHINA	MSCI China	YES	YES	YES	YES	YES	YES
COLOMBIA	Colombia Stock Exchange	YES	YES	YES	YES	YES	YES
COMOROS	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
COSTA RICA	Bolsa Nacional de Valores	YES	YES	YES	YES	YES	YES
CROATIA	Zagreb Stock Exchange	YES	YES	YES	YES	YES	YES
CUBA	Central Bank: Shares and Equity	YES	YES	YES	NO	NO	NO
CURACAO	Eastern Caribbean Securities Exchange	YES	YES	YES	NO	NO	NO
CYPRUS	Cyprus Stock Exchange	YES	YES	YES	YES	YES	YES
CZECH REPUBLIC	Prague Stock Exchange	YES	YES	YES	YES	YES	YES
DEMOCRATIC REPUBLIC OF CONGO	Bourse des Valeurs Mobilières de l'Afrique Centrale	YES	YES	YES	YES	YES	NO
DENMARK	OMX Copenhagen 20	YES	YES	YES	YES	YES	YES
DJIBOUTI	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	YES
DOMINICA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
DOMINICAN REPUBLIC	Bolsa de Valores de la República Dominicana	YES	YES	YES	YES	YES	YES
EAST TIMOR	Central Bank: Shares and Equity	YES	YES	YES	NO	YES	NO
ECUADOR	Bolsa de Valores de Quito	YES	YES	YES	YES	YES	NO
EGYPT	Egyptian Stock Exchange	YES	YES	YES	YES	YES	NO
EL SALVADOR	Bolsa de Valores de El Salvador	YES	YES	YES	YES	YES	YES

EQUATORIAL GUINEA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
ERITREA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
ESTONIA	Tallinn Stock Exchange	YES	YES	YES	YES	YES	YES
ETHIOPIA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
FIJI	South Pacific Stock Exchange	YES	YES	YES	YES	YES	NO
FINLAND	OMX Helsinki	YES	YES	YES	YES	YES	YES
FRANCE	CAC 40	YES	YES	YES	YES	YES	YES
GABON	Bourse des Valeurs Mobilières de l'Afrique Centrale	YES	YES	YES	YES	YES	NO
GAMBIA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
GEORGIA	Georgian Stock Exchange	YES	YES	YES	YES	YES	YES
GERMANY	DAX 30	YES	YES	YES	YES	YES	YES
GHANA	Ghana Stock Exchange	YES	YES	YES	YES	YES	YES
GREECE	Athens Stock Exchange	YES	YES	YES	YES	YES	YES
GRENADA	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO
GUATEMALA	Guatemala Stock Exchange	YES	YES	YES	YES	YES	YES
GUINEA	Central Bank: Shares and Equity	YES	YES	YES	YES	NO	NO
GUINEA-BISSAU	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
GUYANA	Guyana Stock Exchange	YES	YES	YES	YES	YES	NO
HAITI	Haitian Stock Exchange	YES	YES	YES	YES	YES	YES

HONDURAS	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
HONG KONG	Hong Kong Stock Exchange	YES	YES	YES	YES	YES	YES
HUNGARY	Budapest Stock Exchange	YES	YES	YES	YES	YES	YES
ICELAND	OMX Iceland All-Share	YES	YES	YES	YES	YES	YES
INDIA	National Stock Exchange of India	YES	YES	YES	YES	YES	YES
INDONESIA	Indonesia Stock Exchange	YES	YES	YES	YES	YES	YES
IRAN	Iran Stock Exchange	YES	YES	YES	YES	YES	NO
IRAQ	Iraq Stock Exchange	YES	YES	YES	YES	YES	NO
IRELAND	Irish Stock Exchange	YES	YES	YES	YES	YES	YES
ISRAEL	Tel Aviv Stock Exchange	YES	YES	YES	YES	YES	YES
ITALY	FTSE MIB Index	YES	YES	YES	YES	YES	YES
IVORY COAST	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
JAMAICA	Jamaica Stock Exchange	YES	YES	YES	YES	YES	NO
JAPAN	Tokyo Stock Exchange	YES	YES	YES	YES	YES	YES
JORDAN	Amman Stock Exchange	YES	YES	YES	YES	YES	NO
KAZAKHSTAN	Kazakhstan Stock Exchange	YES	YES	YES	YES	YES	YES
KENYA	Nairobi Securities Exchange	YES	YES	YES	YES	YES	YES
KIRIBATI	South Pacific Stock Exchange	YES	YES	YES	NO	NO	NO
KOSOVO	Stock Exchange in Kosova	YES	YES	YES	YES	YES	NO

KUWAIT	Boursa Kuwait	YES	YES	YES	YES	YES	YES
KYRGYZSTAN	Kyrgyzstan Stock Exchange	YES	YES	YES	YES	YES	NO
LAOS	Laos Securities Exchange	YES	YES	YES	NO	YES	NO
LATVIA	OMX Riga	YES	YES	YES	YES	YES	YES
LEBANON	Beirut Stock Exchange	YES	YES	YES	YES	YES	YES
LESOTHO	Maseru Securities Exchange	YES	YES	YES	YES	YES	NO
LIBERIA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
LIBYA	Libyan Stock Market	YES	YES	YES	YES	YES	NO
LITHUANIA	OMX Vilnius	YES	YES	YES	YES	YES	YES
LUXEMBOURG	Luxembourg Stock Exchange	YES	YES	YES	YES	YES	YES
MACAU	MSCI Macau	YES	YES	YES	YES	YES	NO
MADAGASCAR	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
MALAWI	Malawi Stock Exchange	YES	YES	YES	YES	YES	NO
MALAYSIA	MSCI Malaysia	YES	YES	YES	YES	YES	YES
MALDIVES	Maldives Stock Exchange	YES	YES	YES	NO	NO	NO
MALI	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
MALTA	Malta Stock Exchange	YES	YES	YES	YES	YES	YES
MARSHALL ISLANDS	Central Bank: Shares and Equity	YES	YES	YES	NO	NO	NO
MAURITANIA	Central Bank: Shares and Equity	YES	YES	YES	NO	YES	NO

MAURITIUS	Stock Exchange of Mauritius	YES	YES	YES	YES	YES	NO
MEXICO	Índice de Precios y Cotizaciones	YES	YES	YES	YES	YES	YES
MICRONESIA	Central Bank: Shares and Equity	YES	YES	YES	NO	YES	NO
MOLDOVA	Moldova Stock Exchange	YES	YES	YES	YES	YES	YES
MONGOLIA	Mongolia Stock Exchange	YES	YES	YES	YES	YES	NO
MONTENEGRO	Montenegro Stock Exchange	YES	YES	YES	YES	YES	NO
MONTSERRAT	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO
MOROCCO	MASI Index	YES	YES	YES	YES	YES	YES
MOZAMBIQUE	Bolsa de Valores de Mozambique	YES	YES	YES	YES	YES	NO
MYANMAR	Myanmar Securities Exchange Centre	YES	YES	YES	YES	YES	NO
NAMIBIA	Namibia Stock Exchange	YES	YES	YES	YES	YES	NO
NEPAL	Nepal Stock Exchange	YES	YES	YES	YES	YES	YES
NETHERLANDS	Amsterdam Exchange index	YES	YES	YES	YES	YES	YES
NEW ZEALAND	NZX 50 Index	YES	YES	YES	YES	YES	YES
NICARAGUA	Bolsa de Valores de Nicaragua	YES	YES	YES	YES	YES	YES
NIGER	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
NIGERIA	Nigerian Stock Exchange	YES	YES	YES	YES	YES	NO
NORTH MACEDONIA	Skopje Stock Exchange	YES	YES	YES	YES	YES	NO
NORWAY	Oslo Stock Exchange	YES	YES	YES	YES	YES	YES

OMAN	Muscat Securities Market	YES	YES	YES	YES	YES	NO
PAKISTAN	Pakistan Stock Exchange	YES	YES	YES	YES	YES	YES
PALAU	Central Bank: Shares and Equity	YES	YES	YES	NO	NO	NO
PALESTINE	MSCI Palestine	YES	YES	YES	NO	NO	NO
PANAMA	Bolsa de Valores de Panamá	YES	YES	YES	NO	NO	NO
PAPUA NEW GUINEA	Port Moresby Stock Exchange	YES	YES	YES	NO	NO	YES
PARAGUAY	Bolsa de Valores y Productos de Asuncion	YES	YES	YES	YES	YES	YES
PERU	Lima Stock Exchange	YES	YES	YES	YES	YES	NO
PHILIPPINES	PSE Composite Index	YES	YES	YES	YES	YES	YES
POLAND	Warsaw Stock Exchange	YES	YES	YES	YES	YES	YES
PORTUGAL	PSI 20	YES	YES	YES	YES	YES	YES
PUERTO RICO	Central Bank: Shares and Equity	YES	YES	YES	NO	NO	NO
QATAR	Qatar Stock Exchange	YES	YES	YES	YES	YES	YES
REPUBLIC OF CONGO	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
ROMANIA	Bucharest Exchange Trading index	YES	YES	YES	YES	YES	YES
RUSSIAN FEDERATION	RTS Index	YES	YES	YES	YES	YES	YES
RWANDA	Rwanda Stock Exchange	YES	YES	YES	YES	YES	YES
SAINT KITTS AND NEVIS	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO
SAINT LUCIA	Eastern Caribbean Securities Exchange	YES	YES	YES	YES	YES	NO

SAINT VINCENT AND THE GRENADINES	Saint Vicent and Grenadines Securities	YES	YES	YES	YES	YES	NO
SAMOA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
SAO TOME AND PRINCIPE	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	YES
SAUDI ARABIA	Tadawul	YES	YES	YES	YES	YES	YES
SENEGAL	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
SERBIA	Belgrade Stock Exchange	YES	YES	YES	YES	YES	YES
SEYCHELLES	Seychelles Securities Exchange	YES	YES	YES	YES	YES	YES
SIERRA LEONE	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
SINGAPORE	Stock Exchange of Singapore	YES	YES	YES	YES	YES	YES
SLOVAKIA	Bratislava Stock Exchange	YES	YES	YES	YES	YES	YES
SLOVENIA	Ljubljana Stock Exchange	YES	YES	YES	YES	YES	YES
SOLOMON ISLANDS	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	YES
SOMALIA	Somali Stock Exchange	YES	YES	YES	NO	YES	YES
SOUTH AFRICA	FTSE South Africa	YES	YES	YES	YES	YES	YES
SOUTH KOREA	Korea Stock Exchange	YES	YES	YES	YES	YES	YES
SOUTH SUDAN	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
SPAIN	IBEX 35	YES	YES	YES	YES	YES	YES
SRI LANKA	Colombo Stock Exchange	YES	YES	YES	YES	YES	NO
SUDAN	Khartoum Stock Exchange	YES	YES	YES	YES	YES	NO

SURINAME	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
SWAZILAND	Swaziland Stock Exchange	YES	YES	YES	YES	YES	NO
SWEDEN	OMX Stockholm 30	YES	YES	YES	YES	YES	YES
SWITZERLAND	Swiss Market Index	YES	YES	YES	YES	YES	YES
SYRIA	Damascus Securities Exchange	YES	YES	YES	YES	NO	NO
TAIWAN	Taiwan Capitalization Weighted Stock Index	YES	YES	YES	YES	YES	NO
TAJIKISTAN	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	YES
TANZANIA	Dar es Salaam Stock Exchange	YES	YES	YES	YES	YES	YES
THAILAND	Stock Exchange of Thailand	YES	YES	YES	YES	YES	YES
TOGO	Bourse Régionale des Valeurs Mobilières	YES	YES	YES	YES	YES	NO
TONGA	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
TRINIDAD & TOBAGO	Trinidad and Tobago Stock Exchange	YES	YES	YES	YES	YES	YES
TUNISIA	Bourse de Tunis	YES	YES	YES	YES	YES	YES
TURKEY	Turkey Stock Market	YES	YES	YES	YES	YES	YES
TURKMENISTAN	Central Bank: Shares and Equity	YES	YES	YES	NO	YES	NO
TUVALU	Central Bank: Shares and Equity	YES	YES	YES	NO	NO	NO
UGANDA	Uganda Securities Exchange	YES	YES	YES	YES	YES	YES
UKRAINE	PFTS Ukraine Stock Exchange	YES	YES	YES	YES	YES	YES
UNITED ARAB EMIRATES	Abu Dhabi Securities Market	YES	YES	YES	YES	YES	YES

UNITED KINGDOM	FTSE Index	YES	YES	YES	YES	YES	YES
UNITED STATES OF AMERICA	S&P 500	YES	YES	YES	YES	YES	YES
URUGUAY	Bolsa de Valores de Montevideo	YES	YES	YES	YES	YES	YES
UZBEKISTAN	Tashkent Stock Exchange	YES	YES	YES	NO	YES	NO
VANUATU	Central Bank: Shares and Equity	YES	YES	YES	YES	YES	NO
VENEZUELA	Bolsa de Valores de Caracas	YES	YES	YES	YES	YES	YES
VIETNAM	MSCI Vietnam	YES	YES	YES	NO	YES	NO
YEMEN	Central Bank: Shares and Equity	YES	YES	YES	NO	YES	NO
ZAMBIA	Lusaka Stock Exchange	YES	YES	YES	YES	YES	YES
ZIMBABWE	MSCI Zimbabwe	YES	YES	YES	YES	YES	YES

Attachment 3 – Regression: Real Stock Return vs. Inflation Rate, 1989.Q1 -2019.Q4

Country	α	β	F	R^2	p-value of β	N
AFGHANISTAN	0.062636	-3.643151	2.554585	0.175518	0.105900	14
ALBANIA	0.523604	-13.324110	0.523863	0.007535	0.033000	71
ALGERIA	0.034309	-3.306138	1.096332	0.028042	0.285500	40
ANGOLA	15.690180	-60.888130	0.070661	0.001038	0.352200	70
ANGUILLA	-0.097352	-21.189210	1.174325	0.032463	0.092600	37
ANTIGUA & BARBUDA	-0.138896	-6.518689	0.088873	0.001305	0.211700	70
ARGENTINA	0.159750	-2.976152	1.764150	0.163891	0.145600	11
ARMENIA	0.050820	-1.996108	15.523540	0.192783	0.010700	67
ARUBA	0.099613	5.176518	2.679750	0.090289	0.106400	29
AUSTRALIA	0.019640	-1.729357	1.963388	0.015967	0.161200	123
AUSTRIA	0.013389	-0.639573	0.102623	0.000847	0.771600	123
AZERBAIJAN	0.054746	-0.857913	1.541686	0.022169	0.216600	70
BAHAMAS	-0.197642	-3.622444	0.020120	0.000609	0.559300	35
BAHRAIN	-0.020277	-4.354999	3.429489	0.069381	0.063200	48
BANGLADESH	-0.045483	3.059533	4.793267	0.166472	0.008500	26
BARBADOS	-0.000278	-0.674690	1.207412	0.056933	0.188400	22
BELARUS	0.079539	-1.434864	8.229663	0.143801	0.000500	51
BELGIUM	0.039541	-6.151644	9.787285	0.074834	0.003000	123

BELIZE	0.024251	-0.931616	4.258517	0.058934	0.000000	70
BENIN	0.016792	-1.083388	64.605920	0.623574	0.000200	41
BERMUDA	0.408274	7.122065	0.016623	0.000302	0.893600	57
BHUTAN	0.049320	-4.503123	2.906912	0.171936	0.237700	16
BOLIVIA	0.037024	-2.117105	6.896958	0.092086	0.005700	70
BOSNIA & HERZEGOVINA	-0.021587	1.926846	3.038856	0.079888	0.073000	37
BOTSWANA	-0.092016	4.460776	4.069108	0.090286	0.073600	43
BRAZIL	0.020119	0.083357	3.993919	0.033284	0.055600	118
BRUNEI	0.109960	6.391650	0.134454	0.001973	0.014900	70
BULGARIA	0.015872	1.320555	1.063940	0.014365	0.276000	75
BURKINA FASO	0.006040	-0.379309	0.329116	0.003998	0.559000	84
BURUNDI	0.020638	-0.517987	0.519401	0.007162	0.311400	74
CAMBODIA	0.016261	-1.650499	0.064375	0.002918	0.684200	24
CAMEROON	0.039103	1.845458	0.049487	0.002244	0.540400	24
CANADA	0.011881	0.038588	0.001078	0.000009	0.979800	123
CAPE VERDE	0.025879	-0.933339	0.583208	0.011091	0.543500	54
CAYMAN ISLANDS	0.025524	0.435557	0.033943	0.001882	0.761900	20
CENTRAL AFRICAN REPUBLIC	0.020321	-0.966373	0.856403	0.012621	0.041300	69
CHAD	0.117841	6.685195	2.664647	0.046209	0.236300	57

CHILE	0.009499	0.648938	1.217736	0.009964	0.332200	123
CHINA	0.011706	-0.451176	0.119311	0.001135	0.727300	107
COLOMBIA	0.044754	-1.195469	3.039043	0.028129	0.174200	107
COMOROS	0.005615	-0.904204	115.257600	0.657647	0.000000	62
COSTA RICA	0.003222	-4.603328	0.339009	0.004961	0.538800	70
CROATIA	-0.001413	2.325679	1.849098	0.021539	0.228800	86
CUBA	-0.004462	-0.456431	0.022710	0.000567	0.846800	42
CURACAO	-0.029707	-2.850046	0.374352	0.007902	0.533200	49
CYPRUS	-0.011062	0.771175	0.092294	0.001589	0.796500	60
CZECH REPUBLIC	0.017466	-1.585508	2.012930	0.020537	0.077700	98
DEMOCRATIC REPUBLIC OF CONGO	0.392700	-4.788956	0.616085	0.008484	0.008800	74
DENMARK	0.018234	0.876861	0.209454	0.001728	0.665200	123
DJIBOUTI	0.035588	-3.354877	2.597393	0.147601	0.169900	17
DOMINICA	-0.001437	-1.885645	4.130600	0.057266	0.000000	70
DOMINICAN REPUBLIC	0.094335	-4.725150	0.508465	0.007315	0.292200	71
EAST TIMOR	0.063221	-2.354334	3.365544	0.053965	0.002900	61
ECUADOR	0.017059	-1.571346	0.600699	0.008756	0.130800	70
EGYPT	0.007967	0.459046	0.296449	0.003079	0.635800	98
EL SALVADOR	0.019405	0.420147	0.121401	0.001756	0.537300	71

EQUATORIAL GUINEA	0.219445	-36.554620	0.406978	0.028249	0.569600	16
ERITREA	0.012949	-0.876200	1.682256	0.018551	0.305600	91
ESTONIA	0.027480	0.779539	0.162021	0.001777	0.762300	93
ETHIOPIA	-0.014227	-0.768346	1.143635	0.039241	0.186500	30
FIJI	-0.010917	0.211665	0.036285	0.003288	0.857900	13
FINLAND	0.023394	-0.481989	0.032295	0.000267	0.842300	123
FRANCE	0.006973	0.861641	0.067488	0.000581	0.798500	118
GABON	0.009633	0.075503	0.002878	0.000054	0.935100	55
GAMBIA	0.005342	13.133520	0.103347	0.005410	0.524900	21
GEORGIA	0.025335	1.773426	1.592736	0.037395	0.309800	43
GERMANY	0.021765	-0.246366	0.014694	0.000121	0.902000	123
GHANA	0.008714	-0.204179	0.031047	0.000969	0.727400	34
GREECE	0.012573	0.177106	0.035950	0.000297	0.905600	123
GRENADA	0.011330	-0.468388	0.307777	0.004506	0.530200	70
GUATEMALA	0.084453	-4.701336	2.133046	0.029987	0.106300	71
GUINEA	-0.004953	-0.386510	0.669556	0.010516	0.465200	65
GUINEA-BISSAU	0.024583	-0.895341	26.951190	0.302989	0.000000	64
GUYANA	1.650276	96.754960	1.246866	0.017750	0.354600	71
HAITI	0.268225	-2.614773	0.254217	0.003780	0.249700	69

HONDURAS	0.108593	-3.961055	0.924402	0.013412	0.215900	70
HONG KONG	0.023966	-0.886518	0.748466	0.006148	0.443600	123
HUNGARY	0.024574	0.192630	0.072250	0.000669	0.827300	110
ICELAND	0.085442	-6.893134	38.101820	0.266257	0.003100	107
INDIA	0.023480	-1.050786	1.250787	0.037617	0.146800	34
INDONESIA	0.049531	-1.428403	9.469780	0.093326	0.000100	94
IRAN	0.105329	-1.834306	40.977620	0.465773	0.002300	49
IRAQ	-0.017090	0.697280	0.521342	0.018943	0.551600	29
IRELAND	0.011210	0.411817	0.092225	0.000762	0.840300	123
ISRAEL	0.021881	0.475149	0.590105	0.004853	0.527300	123
ITALY	0.009656	-1.838691	2.878303	0.032753	0.045100	87
IVORY COAST	-0.007230	-0.574998	18.429230	0.380539	0.000000	32
JAMAICA	0.048727	-1.232271	2.995889	0.037925	0.020800	78
JAPAN	0.005036	-1.554105	0.847086	0.006952	0.409300	123
JORDAN	0.007977	-0.239499	0.308931	0.002547	0.568800	123
KAZAKHSTAN	0.015563	-1.838276	0.221888	0.004601	0.359900	50
KENYA	-0.002090	-0.204571	0.301241	0.002590	0.635000	118
KIRIBATI	0.015016	-1.270912	18.049650	0.128880	0.000000	124
KOSOVO	0.034408	-0.108476	0.062811	0.000937	0.877300	69

KUWAIT	0.006281	-0.778509	0.124799	0.002264	0.647800	57
KYRGYZSTAN	0.081051	5.954443	3.183630	0.048103	0.050800	65
LAOS	0.006854	-2.627456	2.852755	0.089561	0.092500	31
LATVIA	0.018075	-2.403425	1.482079	0.044265	0.072600	34
LEBANON	-0.022202	1.007353	1.437515	0.031637	0.517500	46
LESOTHO	0.014306	0.450912	0.036986	0.000672	0.783300	57
LIBERIA	0.031824	-1.354488	1.456421	0.030056	0.267100	49
LIBYA	0.045472	-1.496584	3.647260	0.058219	0.029100	61
LITHUANIA	0.063356	-5.572583	11.675840	0.131669	0.004500	79
LUXEMBOURG	-0.021397	3.479675	3.182550	0.038260	0.124500	82
MACAU	0.004277	2.049409	0.090795	0.002448	0.760300	39
MADAGASCAR	0.750943	-28.558300	0.962683	0.018177	0.213300	54
MALAWI	0.098620	-1.553951	13.217830	0.355148	0.000000	26
MALAYSIA	0.023905	-1.507455	0.637345	0.005240	0.289900	123
MALDIVES	-0.002194	-0.477834	0.195707	0.003483	0.636300	58
MALI	0.007343	-1.867834	5.270852	0.163332	0.042100	29
MALTA	0.028992	-1.695108	11.671110	0.112578	0.000100	94
MARSHALL ISLANDS	-0.030506	-4.232355	0.376091	0.007046	0.369400	55
MAURITANIA	0.018120	-0.385530	0.204391	0.008444	0.228800	26

MAURITIUS	0.012392	0.240510	0.188913	0.001598	0.632400	120
MEXICO	0.046746	-0.750815	2.835587	0.022898	0.169200	123
MICRONESIA	0.003554	-1.438793	1.930058	0.049578	0.422400	39
MOLDOVA	0.105780	5.357589	1.413150	0.018022	0.163000	79
MONGOLIA	0.011798	0.313356	0.000725	0.000011	0.951500	69
MONTENEGRO	-0.008219	-1.669657	0.548639	0.012316	0.427500	46
MONTSERRAT	0.013846	-0.845109	1.033926	0.051609	0.146100	21
MOROCCO	-0.002109	1.214967	0.530581	0.010933	0.472700	50
MOZAMBIQUE	0.067542	-8.523268	3.724826	0.051218	0.117800	71
MYANMAR	-0.013048	4.524039	4.236830	0.155555	0.052000	25
NAMIBIA	0.039876	-1.762379	10.341310	0.119772	0.006000	78
NEPAL	0.019432	0.028222	0.001422	0.000023	0.971500	64
NETHERLANDS	0.014412	-0.554251	0.109757	0.001192	0.724000	94
NEW ZEALAND	0.030470	-1.950470	19.144760	0.136607	0.000200	123
NICARAGUA	0.193921	-5.758901	1.228537	0.017746	0.147600	70
NIGER	0.002968	-2.054343	7.910553	0.180152	0.003200	38
NIGERIA	0.023007	-0.759038	0.703229	0.010387	0.187300	69
NORTH MACEDONIA	0.046194	-1.500963	0.585230	0.010163	0.340300	59
NORWAY	0.026507	0.118764	0.004671	0.000039	0.948000	123

OMAN	-0.016179	2.579003	2.554998	0.042901	0.068200	59
PAKISTAN	0.115605	-4.001500	16.190270	0.187843	0.000700	72
PALAU	0.094570	-2.786738	28.246390	0.432919	0.000000	39
PALESTINE	0.004024	-0.596297	0.264958	0.008212	0.664200	34
PANAMA	0.000703	-0.525392	0.204513	0.010122	0.612600	22
PAPUA NEW GUINEA	-0.066996	-3.430029	0.919046	0.013531	0.055500	69
PARAGUAY	-0.301886	21.963800	4.518044	0.061455	0.154500	71
PERU	0.037232	-1.070429	2.224942	0.020750	0.058600	107
PHILIPPINES	0.005903	0.776527	0.498260	0.004101	0.662600	123
POLAND	-0.019034	1.979784	4.816864	0.043467	0.430600	108
PORTUGAL	0.017926	-2.100378	2.280056	0.021253	0.062800	107
PUERTO RICO	0.015351	7.407717	0.315749	0.002581	0.602700	124
QATAR	0.030465	-4.099295	2.780420	0.064993	0.199600	42
REPUBLIC OF CONGO	0.423790	-5.644684	0.253324	0.003943	0.215000	66
ROMANIA	0.031945	-8.957276	7.803789	0.107189	0.019500	67
RUSSIAN FEDERATION	0.051750	-0.774836	2.309062	0.023976	0.022800	96
RWANDA	-0.003695	-1.996104	7.545143	0.239186	0.004900	26
SAINT KITTS AND NEVIS	0.002767	-0.860675	1.210248	0.033423	0.095600	37
SAINT LUCIA	-0.000600	2.345349	0.825655	0.034654	0.234400	25

SAINT VINCENT AND THE GRENADINES	-0.010085	-1.865783	3.024566	0.079542	0.059300	37
SAMOA	0.024154	-1.545985	3.547713	0.048902	0.009000	71
SAO TOME AND PRINCIPE	0.011524	-0.395532	0.508644	0.009163	0.337500	57
SAUDI ARABIA	0.037662	-2.203330	1.966174	0.023988	0.175200	82
SENEGAL	-0.011401	-0.579009	0.694340	0.015535	0.266300	46
SERBIA	0.001843	-1.556928	1.049907	0.021405	0.226100	50
SEYCHELLES	0.033428	-0.012185	0.000056	0.000001	0.993500	53
SIERRA LEONE	-0.959271	24.428630	3.558456	0.069018	0.082300	50
SINGAPORE	0.023590	-3.074688	3.231106	0.026009	0.080500	123
SLOVAKIA	0.021181	-1.852781	3.931023	0.039337	0.032200	98
SLOVENIA	-0.002262	0.399238	0.069949	0.001343	0.813900	54
SOLOMON ISLANDS	-0.358858	2.279833	0.104771	0.001516	0.330500	71
SOMALIA	0.017724	-1.416230	4.514847	0.048801	0.067600	90
SOUTH AFRICA	0.083237	-4.548484	14.913550	0.128661	0.000500	103
SOUTH KOREA	0.042321	-3.650257	4.466679	0.037078	0.108000	118
SOUTH SUDAN	1.083094	-3.173560	0.675465	0.022020	0.247300	32
SPAIN	0.010677	-0.103490	0.008035	0.000066	0.892500	123
SRI LANKA	0.004454	-1.650671	2.475524	0.110143	0.053000	22
SUDAN	0.078581	-0.202680	0.011229	0.000374	0.892000	32

SURINAME	0.017111	-5.100763	1.588133	0.028065	0.206500	57
SWAZILAND	-0.240403	5.955199	0.204366	0.003041	0.608700	69
SWEDEN	-9.972278	8.753992	46.345560	0.276945	0.000000	123
SWITZERLAND	0.018509	-0.550197	0.200963	0.001658	0.609000	123
SYRIA	0.063273	-1.373448	0.446048	0.011602	0.039100	40
TAIWAN	0.013055	0.089557	0.002822	0.000023	0.963400	123
TAJIKISTAN	0.250622	6.258903	0.032363	0.000476	0.870400	70
TANZANIA	0.034207	-0.771138	0.441046	0.011780	0.396800	39
THAILAND	0.021965	-0.926974	0.443502	0.003652	0.677200	123
TOGO	0.019546	-0.730029	40.317000	0.514792	0.000100	40
TONGA	0.044782	0.285064	0.056376	0.000867	0.774600	67
TRINIDAD & TOBAGO	0.010443	-0.965784	5.448973	0.117311	0.005800	43
TUNISIA	0.018221	-0.333224	0.060123	0.000707	0.801600	87
TURKEY	0.074865	-2.396226	4.832917	0.070212	0.004400	66
TURKMENISTAN	0.050078	-1.571751	5.127327	0.299365	0.002200	14
TUVALU	0.006811	-0.891567	66.685460	0.477397	0.000000	75
UGANDA	0.051209	-3.074527	9.463552	0.217735	0.000600	36
UKRAINE	-0.013768	1.864438	0.261089	0.005899	0.671300	46
UNITED ARAB EMIRATES	0.010785	-2.479414	0.769024	0.017178	0.140500	46

UNITED KINGDOM OF GREAT BRITAIN & N. IRELAND	0.010214	-0.309591	0.085937	0.000710	0.797400	123
UNITED STATES OF AMERICA	-0.001155	2.137223	3.112135	0.025075	0.344500	123
URUGUAY	-0.060095	2.809852	0.021029	0.000305	0.751100	71
UZBEKISTAN	0.000789	-1.185891	2.242561	0.169345	0.072900	13
VANUATU	-0.002900	0.043707	0.000571	0.000030	0.983400	21
VENEZUELA	0.022859	-0.124344	0.018092	0.000377	0.895700	50
VIETNAM	0.028592	-1.235576	0.559206	0.011284	0.449400	51
YEMEN	-0.074523	-0.243258	0.032685	0.000907	0.769200	38
ZAMBIA	0.025911	-1.934136	5.816189	0.116753	0.052800	46
ZIMBABWE	0.075030	-0.646384	6.229257	0.158791	0.000000	35

Attachment 3.1 - Descriptive Statistics for β

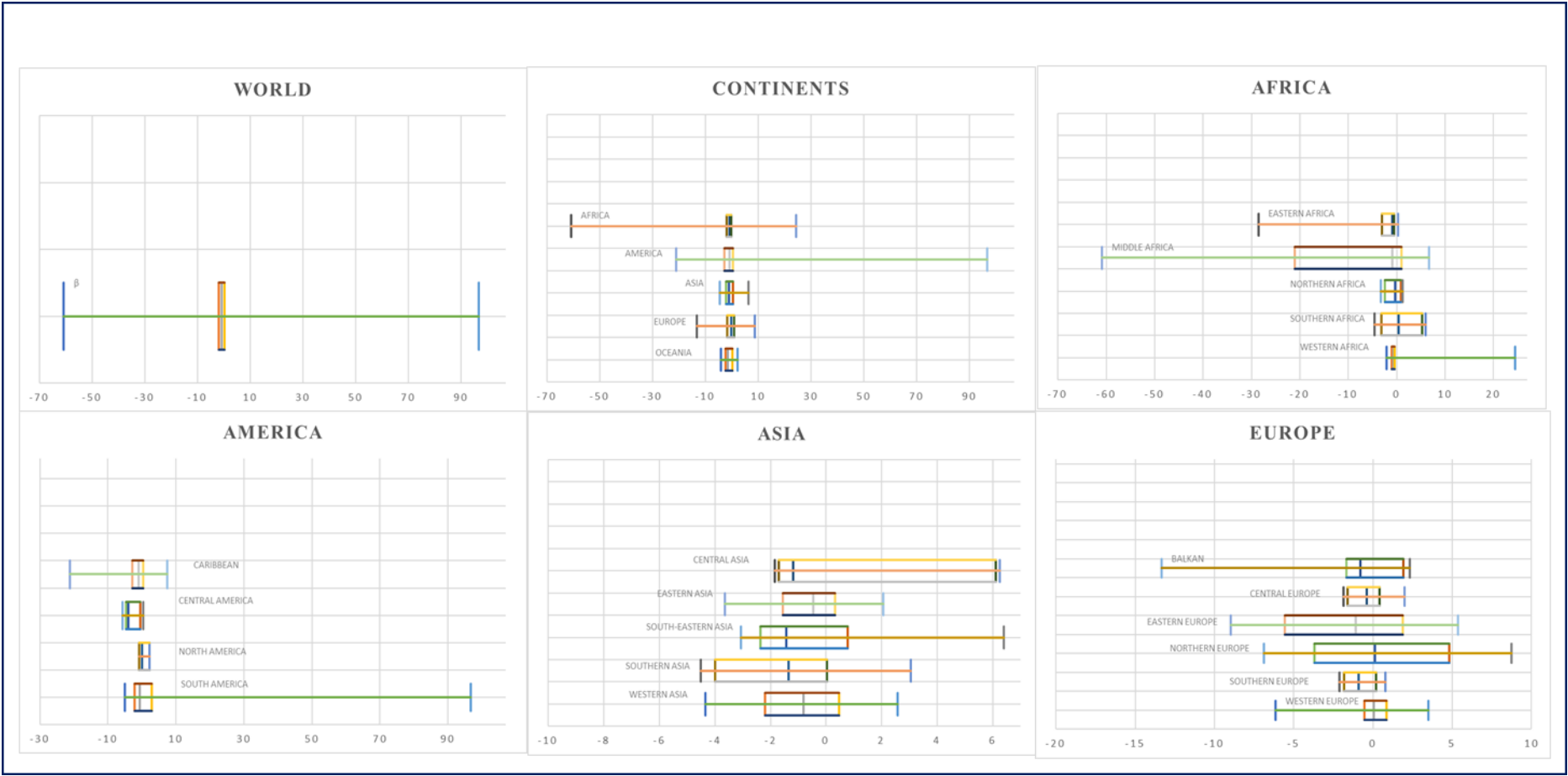
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	-0.739397	-0.857913	-60.888130	96.754960	157.643090	93.315446	9.659992	-1306.47%
AFRICA	-2.452062	-0.769742	-60.888130	24.428630	85.316760	125.205362	11.189520	-456.33%
EASTERN AFRICA	-3.065691	-0.904204	-28.558300	0.240510	28.798810	42.009685	6.481488	-211.42%
MIDDLE AFRICA	-11.181349	-0.966373	-60.888130	6.685195	67.573325	502.798963	22.423179	-200.54%
NORTHERN AFRICA	-0.692387	-0.333224	-3.306138	1.214967	4.521105	3.142806	1.772796	-256.04%
SOUTHERN AFRICA	0.911205	0.450912	-4.548484	5.955199	10.503683	18.802364	4.336169	475.87%
WESTERN AFRICA	1.585926	-0.654519	-2.054343	24.428630	26.482973	49.576902	7.041087	443.97%
AMERICA	1.456689	-0.896146	-21.189210	96.754960	117.944170	258.486502	16.077515	1103.70%
CARIBBEAN	-1.414394	-0.913230	-21.189210	7.407717	28.596927	34.304493	5.857004	-414.10%
CENTRAL AMERICA	-2.865926	-3.961055	-5.758901	0.420147	6.179048	5.995640	2.448600	-85.44%
NORTH AMERICA	0.474999	0.038588	-0.750815	2.137223	2.888038	2.228032	1.492659	314.24%
SOUTH AMERICA	9.008775	-0.597387	-5.100763	96.754960	101.855723	811.161343	28.480894	316.15%
ASIA	-0.586636	-1.050786	-4.503123	6.391650	10.894773	6.611919	2.571365	-438.32%
CENTRAL ASIA	-1.558528	-1.996108	-4.354999	3.059533	7.414532	8.543682	2.922958	-187.55%

EASTERN ASIA	-0.240082	-0.886518	-4.503123	6.391650	10.894773	12.188230	3.491165	-1454.16%
SOUTH-EASTERN ASIA	-0.384043	-1.050786	-2.627456	5.954443	8.581899	5.441561	2.332715	-607.41%
SOUTHERN ASIA	1.064512	0.660355	-1.507455	4.524039	6.031494	3.695325	1.922323	180.58%
WESTERN ASIA	-1.309088	-1.472600	-4.099295	6.258903	10.358198	5.444995	2.333451	-178.25%
EUROPE	-0.748988	-0.309591	-13.324110	8.753992	22.078102	13.098744	3.619219	-483.21%
BALKAN	-1.900742	0.065801	-13.324110	2.325679	15.649789	28.628579	5.350568	-281.50%
CENTRAL EUROPE	0.071739	0.184868	-1.585508	0.876861	2.462369	0.707591	0.841184	1172.56%
EASTERN EUROPE	-1.827491	-1.766900	-6.893134	3.479675	10.372809	10.881618	3.298730	-180.51%
NORTHERN EUROPE	0.350296	-0.554251	-1.669657	5.357589	7.027246	8.363041	2.891892	825.56%
SOUTHERN EUROPE	-2.210403	-1.704855	-8.957276	1.979784	10.937060	13.141169	3.625075	-164.00%
WESTERN EUROPE	1.675732	0.147874	-0.550197	8.753992	9.304189	12.765742	3.572918	213.22%
OCEANIA	-1.265841	-1.438793	-4.232355	2.279833	6.512188	2.967013	1.722502	-136.08%

	Skewness	Kurtosis	Count	St. Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	3.754234	60.705519	199	0.684779	-1.950470	-0.857913	0.240510	17.59%	23.62%	33.67%
AFRICA	-3.244715	15.795141	54	1.522701	-1.934136	-0.769742	-0.204179	24.07%	29.63%	37.04%
EASTERN AFRICA	-3.769915	15.062713	19	1.486955	-3.074527	-0.904204	-0.517987	26.32%	26.32%	36.84%
MIDDLE AFRICA	-1.811183	2.519962	9	7.474393	-21.099652	-0.966373	0.960481	11.11%	22.22%	22.22%
NORTHERN AFRICA	-0.737722	-0.141045	5	0.792818	-2.401361	-0.333224	0.837007	0.00%	20.00%	20.00%
SOUTHERN AFRICA	-0.045487	-1.827577	5	1.939194	-3.155432	0.450912	5.207988	40.00%	40.00%	60.00%
WESTERN AFRICA	2.885348	8.076221	16	1.760272	-1.083388	-0.654519	-0.379309	31.25%	37.50%	43.75%
AMERICA	5.301151	31.816794	42	2.480814	-2.850046	-0.896146	0.420147	9.52%	11.90%	23.81%
CARIBBEAN	-1.822213	6.725356	20	1.309666	-2.850046	-0.913230	0.435557	10.00%	15.00%	30.00%
CENTRAL AMERICA	0.295461	-2.121372	7	0.925484	-4.701336	-3.961055	-0.525392	14.29%	14.29%	14.29%
NORTH AMERICA	1.203206		3	0.861787	-0.750815	0.038588	2.137223	0.00%	0.00%	0.00%
SOUTH AMERICA	3.146247	10.201008	12	8.221726	-2.117105	-0.597387	2.809852	8.33%	8.33%	25.00%
ASIA	1.127963	1.373260	49	0.367338	-2.099719	-1.050786	0.394253	14.29%	20.41%	36.73%
CENTRAL ASIA	1.131546	1.164005	5	1.307186	-1.705014	-1.185891	6.106673	20.00%	20.00%	60.00%

EASTERN ASIA	1.150544	1.841146	7	1.319536	-1.554105	-0.451176	0.313356	0.00%	0.00%	0.00%
SOUTH-EASTERN ASIA	2.272781	6.071363	11	0.703340	-2.354334	-1.428403	0.776527	18.18%	27.27%	54.55%
SOUTHERN ASIA	0.633198	0.129879	8	0.679644	-4.001500	-1.350729	0.028222	25.00%	25.00%	37.50%
WESTERN ASIA	1.998241	6.174278	18	0.550000	-2.203330	-0.818211	0.475149	11.11%	22.22%	33.33%
EUROPE	-0.985769	3.962999	41	0.565227	-1.682383	-0.309591	0.820590	14.63%	26.83%	36.59%
BALKAN	-1.717638	2.650751	8	1.891711	-1.669657	-0.804720	1.926846	0.00%	12.50%	25.00%
CENTRAL EUROPE	-1.082048	1.063137	8	0.297404	-1.585508	-0.398282	0.399238	0.00%	12.50%	25.00%
EASTERN EUROPE	-0.089753	-0.028274	8	1.166277	-5.572583	-1.104850	1.864438	25.00%	50.00%	62.50%
NORTHERN EUROPE	1.898711	3.755002	5	1.293294	-3.687562	0.118764	4.815427	40.00%	40.00%	40.00%
SOUTHERN EUROPE	-1.450102	3.416847	6	1.479931	-1.838691	-0.899299	0.177106	16.67%	33.33%	50.00%
WESTERN EUROPE	2.157861	4.758954	6	1.458638	-0.554251	0.051113	0.861641	16.67%	16.67%	16.67%
OCEANIA	0.262492	0.404419	13	0.477736	-2.368604	-1.438793	0.127686	38.46%	38.46%	46.15%

Attachment 3.2 – Box Plot of β



Attachment 3.3 - Descriptive Statistics for R-Squared

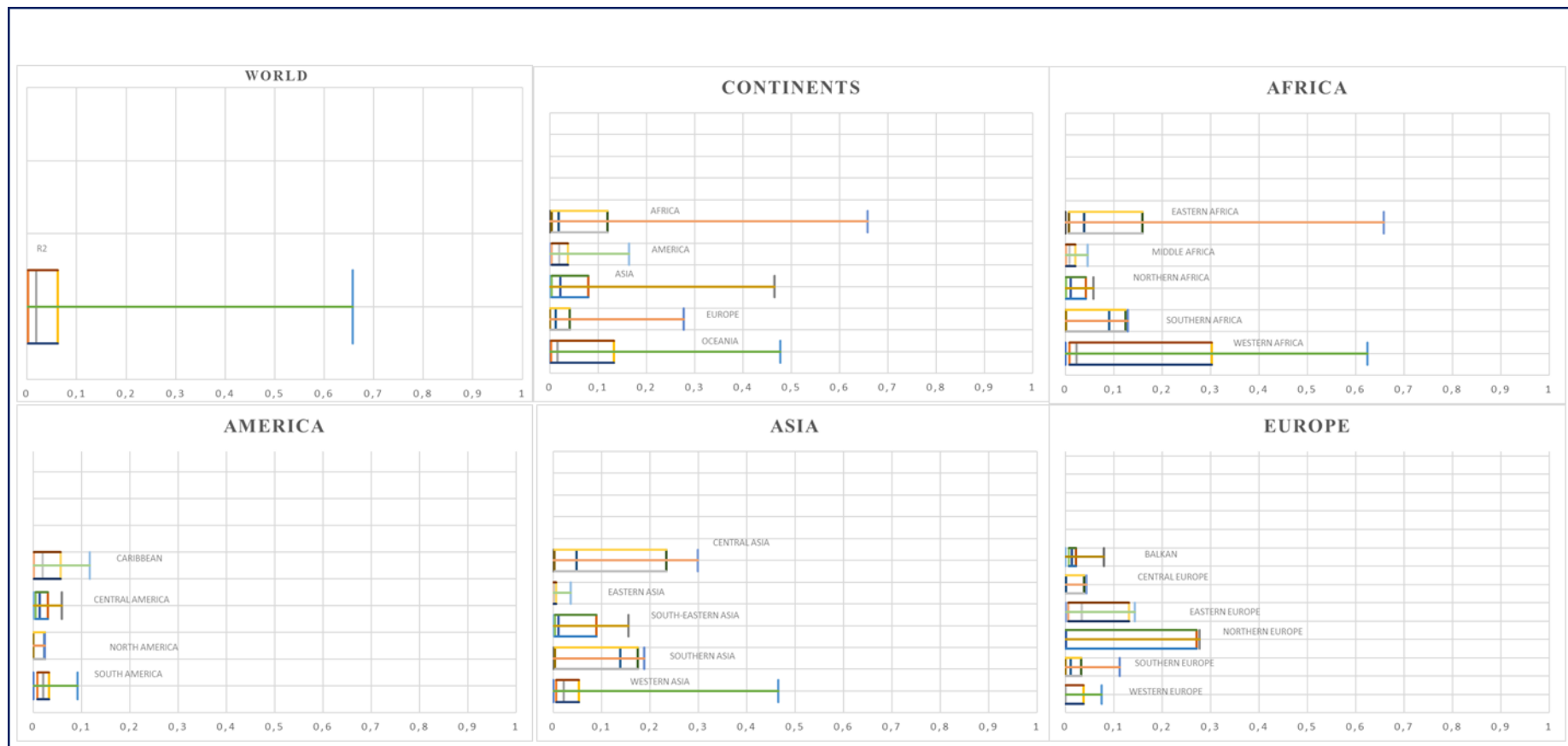
	Mean	Median	Mode	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.060984	0.018022	0.000023	0.000001	0.657647	0.657646	0.011881	0.109001	178.74%
AFRICA	0.092604	0.018364		0.000001	0.657647	0.657646	0.023987	0.154878	167.25%
EASTERN AFRICA	0.091294	0.012621		0.000054	0.657647	0.657593	0.038833	0.197061	215.85%
MIDDLE AFRICA	0.089414	0.018177		0.000672	0.380539	0.379867	0.021175	0.145516	162.74%
NORTHERN AFRICA	0.107891	0.010933		0.001598	0.355148	0.353550	0.023700	0.153947	142.69%
SOUTHERN AFRICA	0.073094	0.051218		0.003943	0.180152	0.176209	0.005708	0.075553	103.36%
WESTERN AFRICA	0.097272	0.035411		0.000001	0.514792	0.514791	0.018783	0.137050	140.89%
AMERICA	0.030283	0.019250		0.000009	0.163891	0.163882	0.001287	0.035872	118.46%
CARIBBEAN	0.032842	0.009360		0.000009	0.163891	0.163882	0.001852	0.043036	131.04%
CENTRAL AMERICA	0.015588	0.013412		0.001756	0.037925	0.036169	0.000195	0.013960	89.55%
NORTH AMERICA	0.030751	0.022898		0.017746	0.051609	0.033863	0.000333	0.018246	59.34%
SOUTH AMERICA	0.034472	0.026570		0.000305	0.117311	0.117006	0.001262	0.035522	103.05%
ASIA	0.060491	0.022169		0.000011	0.465773	0.465762	0.008307	0.091141	150.67%
CENTRAL ASIA	0.125265	0.166472		0.022169	0.192783	0.170614	0.005633	0.075056	59.92%
EASTERN ASIA	0.039353	0.006148		0.001135	0.171936	0.170801	0.003847	0.062026	157.62%

SOUTH-EASTERN ASIA	0.070413	0.018943		0.002264	0.465773	0.463509	0.018333	0.135400	192.29%
SOUTHERN ASIA	0.030162	0.004362		0.000011	0.155555	0.155544	0.002829	0.053193	176.36%
WESTERN ASIA	0.058134	0.020583		0.000023	0.299365	0.299342	0.006901	0.083073	142.90%
EUROPE	0.038606	0.012316		0.000039	0.276945	0.276906	0.004296	0.065545	169.78%
BALKAN	0.043050	0.017952		0.000847	0.143801	0.142954	0.002652	0.051499	119.63%
CENTRAL EUROPE	0.003247	0.000625		0.000121	0.020537	0.020416	0.000049	0.007016	216.05%
EASTERN EUROPE	0.078435	0.041263		0.000762	0.266257	0.265495	0.008026	0.089590	114.22%
NORTHERN EUROPE	0.008346	0.010163		0.000039	0.018022	0.017983	0.000058	0.007630	91.42%
SOUTHERN EUROPE	0.042771	0.031657		0.021253	0.107189	0.085936	0.001087	0.032969	77.08%
WESTERN EUROPE	0.047770	0.001501		0.000066	0.276945	0.276879	0.012609	0.112291	235.07%
OCEANIA	0.101271	0.015967		0.000030	0.477397	0.477367	0.026885	0.163967	161.91%

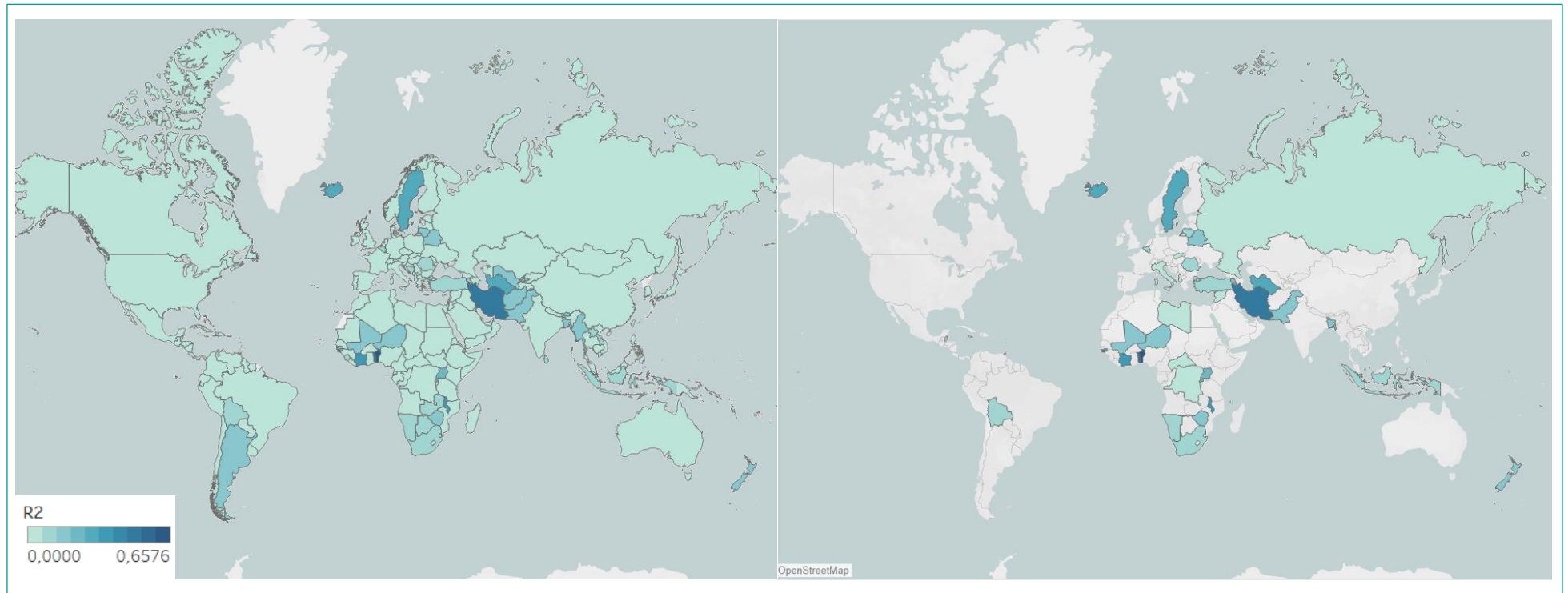
	Skewness	Kurtosis	Count	St. Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	3.10234	10.91625	199	0.00773	0.002590	0.018022	0.061455
AFRICA	2.33976	5.24207	54	0.02108	0.003998	0.018364	0.119772
EASTERN AFRICA	2.63842	5.88558	19	0.04521	0.007162	0.039241	0.158791
MIDDLE AFRICA	1.63142	1.11673	9	0.04851	0.001641	0.008484	0.020435
NORTHERN AFRICA	1.39222	1.03751	5	0.06885	0.001893	0.010933	0.043131
SOUTHERN AFRICA	0.71591	-1.29927	5	0.03379	0.001857	0.090286	0.124217
WESTERN AFRICA	2.12144	5.20419	16	0.03426	0.008444	0.022796	0.302989
AMERICA	1.86086	3.96901	42	0.00554	0.003780	0.019250	0.037925
CARIBBEAN	1.77302	3.36191	20	0.00962	0.001882	0.020183	0.056933
CENTRAL AMERICA	0.72702	-0.93805	7	0.00528	0.004961	0.013412	0.029987
NORTH AMERICA	1.57800		3	0.01053	0.000009	0.022898	0.025075
SOUTH AMERICA	1.33762	1.49809	12	0.01025	0.008756	0.020750	0.033284
ASIA	2.48468	7.66088	49	0.01302	0.003568	0.022169	0.079887
CENTRAL ASIA	-0.75446	-1.98295	5	0.03357	0.002539	0.048103	0.234355
EASTERN ASIA	2.09314	4.56634	7	0.02344	0.000023	0.002448	0.006952

SOUTH-EASTERN ASIA	2.96330	9.21802	11	0.04082	0.003652	0.011284	0.089561
SOUTHERN ASIA	2.35790	5.82287	8	0.01881	0.003483	0.138308	0.175518
WESTERN ASIA	1.88901	3.25432	18	0.01958	0.006533	0.022169	0.053947
EUROPE	2.52789	6.52800	41	0.01024	0.000892	0.012316	0.041402
BALKAN	1.22727	0.68167	8	0.01821	0.007535	0.013341	0.021539
CENTRAL EUROPE	2.78207	7.79892	8	0.00248	0.007535	0.013341	0.021539
EASTERN EUROPE	1.50519	2.20312	8	0.03167	0.005899	0.034121	0.131669
NORTHERN EUROPE	0.03267	-1.94943	5	0.00341	0.000153	0.001728	0.271601
SOUTHERN EUROPE	2.01684	4.27700	6	0.01346	0.000297	0.011421	0.032753
WESTERN EUROPE	2.44765	5.99292	6	0.04584	0.000710	0.000977	0.038260
OCEANIA	1.86224	2.31367	13	0.04548	0.002402	0.015967	0.132744

Attachment 3.3 - Descriptive Statistics for R-Squared



Attachment 3.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN	0.049224	1.891277	0.804411	0.016482	0.305000	50
ALBANIA	0.080318	9.363241	0.471239	0.008059	0.152500	60
ALGERIA	-0.021481	2.094489	1.919667	0.028264	0.112300	68
ANGOLA	0.252547	-10.807610	1.218594	0.040326	0.296000	31
ANGUILLA	0.086428	-3.736745	0.227773	0.004279	0.128700	55
ANTIGUA & BARBUDA	0.356930	-11.791000	0.558654	0.010431	0.396600	55
ARGENTINA	0.033987	-0.033012	0.013540	0.000208	0.899500	67
ARMENIA	-0.002629	0.736418	4.163182	0.060194	0.078100	67
ARUBA	0.176946	-3.758693	2.046566	0.061930	0.030600	33
AUSTRALIA	0.016060	-0.162871	0.706959	0.005809	0.355700	123
AUSTRIA	0.019545	-0.715512	2.786060	0.024272	0.086900	114
AZERBAIJAN	-0.034667	0.910854	2.614820	0.037029	0.179800	70
BAHAMAS	-0.357010	19.785590	0.996473	0.030199	0.306700	34
BAHRAIN	-0.058819	2.838445	6.938415	0.231756	0.001600	25
BANGLADESH	0.017124	-0.714043	0.965119	0.040272	0.321700	25
BARBADOS	0.027782	-0.439976	0.545279	0.008718	0.452900	64
BELARUS	0.013952	0.038572	0.011534	0.000235	0.941800	51
BELGIUM	0.010645	-1.646210	3.364257	0.055733	0.301900	59
BELIZE	0.000745	1.021261	10.045610	0.128715	0.000000	70
BENIN	-0.013247	0.855467	74.109840	0.556757	0.000000	61
BERMUDA	-0.390399	4.670471	16.666910	0.199206	0.043300	69
BHUTAN	0.012870	0.587061	0.223633	0.003327	0.565700	69
BOLIVIA	0.004862	0.260358	0.539963	0.008115	0.389900	68

Country	α	β	F	R ²	p-value of β	N
BOSNIA & HERZEGOVINA	-0.008781	-0.521014	0.328592	0.009572	0.581200	36
BOTSWANA	-0.039346	0.025135	0.001299	0.000032	0.976300	43
BRAZIL	0.013550	0.060371	0.143366	0.001507	0.747300	97
BRUNEI	0.170440	-9.140941	0.225538	0.003512	0.201900	66
BULGARIA	0.029842	-0.190648	0.045052	0.000693	0.859700	67
BURKINA FASO	-0.030057	0.694588	0.604198	0.010866	0.432100	57
BURUNDI	-0.029784	0.563506	0.726506	0.014910	0.277500	50
CAMBODIA	-0.009898	2.201871	1.024999	0.015068	0.121100	69
CAMEROON	0.099162	-1.762806	0.209480	0.003212	0.639200	67
CANADA	0.018041	-0.175353	0.551526	0.004537	0.405900	123
CAPE VERDE	0.017258	-0.022416	0.002335	0.000034	0.960100	70
CAYMAN ISLANDS	0.049878	-1.163119	0.242967	0.012003	0.409500	22
CENTRAL AFRICAN REPUBLIC	-0.006801	0.852408	0.712454	0.011931	0.082900	61
CHAD	0.341213	-6.008136	2.530741	0.041130	0.200700	61
CHILE	0.028989	-0.559848	1.668006	0.021203	0.136300	79
CHINA	0.083707	-1.505191	2.851497	0.039686	0.138300	71
COLOMBIA	0.044589	-0.236320	2.257319	0.021046	0.140700	107
COMOROS	-0.015923	0.903204	89.061640	0.570682	0.000000	69
COSTA RICA	-0.066612	-0.059989	0.000322	0.000005	0.978600	70
CROATIA	0.020739	-0.839632	1.900053	0.034609	0.421800	55
CUBA	0.004115	3.654596	0.442243	0.028639	0.453800	17
CURACAO	1.380911	-1.522721	0.364556	0.011264	0.599600	34
CYPRUS	-0.022499	1.102996	0.371521	0.006365	0.662000	60

Country	α	β	F	R ²	p-value of β	N
CZECH REPUBLIC	0.017046	-0.424327	1.913833	0.019348	0.135600	99
DEMOCRATIC REPUBLIC OF CONGO	0.187181	1.747611	0.247019	0.005120	0.238000	50
DENMARK	0.032898	-0.329366	1.839799	0.014977	0.148100	123
DJIBOUTI	0.016888	-0.622890	0.180771	0.003914	0.714100	48
DOMINICA	-0.042390	1.435428	3.539065	0.049470	0.000800	70
DOMINICAN REPUBLIC	-0.047592	0.694615	0.012967	0.000188	0.904200	71
EAST TIMOR	0.039665	2.333722	3.387778	0.049538	0.001800	67
ECUADOR	-0.029899	1.098461	0.093988	0.002039	0.621500	48
EGYPT	0.057219	-0.421893	0.630555	0.006734	0.256300	95
EL SALVADOR	0.058846	-1.176276	2.180486	0.030633	0.296400	71
EQUATORIAL GUINEA	-0.225448	-3.457864	0.006390	0.000108	0.888700	61
ERITREA	-0.017237	0.348817	0.537801	0.006006	0.507500	91
ESTONIA	0.061657	-1.083033	4.312122	0.045242	0.041100	93
ETHIOPIA	-0.003383	1.544794	2.036016	0.037679	0.083400	54
FIJI	-0.019601	1.736355	2.436929	0.038415	0.298900	63
FINLAND	0.039731	-0.549195	2.270020	0.018267	0.047600	124
FRANCE	0.014678	-0.079851	0.086374	0.000707	0.670600	124
GABON	-0.003288	0.308071	0.140507	0.002157	0.557600	67
GAMBIA	0.523464	-3.879049	2.945875	0.055639	0.146800	52
GEORGIA	0.152521	-2.158343	4.295762	0.092790	0.124800	44
GERMANY	0.033382	-0.689053	1.034833	0.010556	0.325500	99
GHANA	-0.009609	0.080931	0.032189	0.000974	0.886700	35
GREECE	-0.019539	0.574540	2.503930	0.020274	0.160700	123

Country	α	β	F	R ²	p-value of β	N
GRENADA	0.006927	0.093802	0.016731	0.000246	0.881300	70
GUATEMALA	-0.042136	1.696844	0.495173	0.007125	0.402700	71
GUINEA	-0.027986	0.104515	0.040627	0.000738	0.884900	57
GUINEA-BISSAU	-0.037480	0.851498	23.312180	0.297683	0.000000	57
GUYANA	2.880971	-38.384800	0.258103	0.003727	0.352400	71
HAITI	0.309406	-2.011990	0.134095	0.002524	0.698900	55
HONDURAS	-0.009242	0.587893	0.333178	0.004876	0.303500	70
HONG KONG	0.020599	-0.157780	0.126488	0.001089	0.752600	118
HUNGARY	0.026889	-0.017182	0.008638	0.000079	0.927000	112
ICELAND	0.109919	-1.462318	9.740480	0.105029	0.145900	85
INDIA	0.081238	-1.106514	1.066275	0.021297	0.365700	51
INDONESIA	0.048583	-0.319172	1.394039	0.014768	0.384800	95
IRAN	-0.100474	1.236671	77.207900	0.676029	0.000000	39
IRAQ	0.007219	-0.715317	0.304365	0.021278	0.510200	16
IRELAND	0.020893	-0.230766	0.640166	0.005263	0.348400	123
ISRAEL	0.016250	-1.786083	3.597001	0.103969	0.125100	33
ITALY	-0.003287	0.324807	0.213648	0.002507	0.693300	87
IVORY COAST	-0.028367	0.779701	10.438320	0.112922	0.000000	84
JAMAICA	0.034372	0.071359	0.286579	0.002382	0.620200	122
JAPAN	0.009368	-0.615705	1.558790	0.012616	0.100400	124
JORDAN	0.035901	-1.189937	3.933673	0.066747	0.103500	57
KAZAKHSTAN	-0.061633	0.938994	2.174221	0.043333	0.011600	50
KENYA	-0.021047	0.022389	0.002355	0.000057	0.959500	43

Country	α	β	F	R ²	p-value of β	N
KIRIBATI	0.018377	0.056326	0.115577	0.004426	0.724200	28
KOSOVO	0.004038	1.368780	5.766440	0.170774	0.063800	30
KUWAIT	-0.006361	0.503583	0.210747	0.003817	0.655100	57
KYRGYZSTAN	0.091495	-0.020388	0.000371	0.000008	0.982000	50
LAOS	0.033603	-0.272812	0.642525	0.021676	0.381100	31
LATVIA	0.010007	1.387523	0.491567	0.015129	0.346500	34
LEBANON	0.025176	-0.340946	1.043567	0.011462	0.237200	92
LESOTHO	0.078855	-1.164520	2.960476	0.041720	0.008300	70
LIBERIA	0.045918	-0.426058	0.054928	0.002491	0.785400	24
LIBYA	-0.057349	1.244911	3.721135	0.053372	0.029300	68
LITHUANIA	0.021993	0.323184	0.238802	0.003092	0.556600	79
LUXEMBOURG	0.025970	-0.975366	0.957648	0.013496	0.429400	72
MACAU	0.020941	-1.092997	0.095127	0.002564	0.719700	39
MADAGASCAR	-0.809972	12.569010	0.511031	0.009732	0.160900	54
MALAWI	-0.064730	0.633805	7.843139	0.157356	0.003400	44
MALAYSIA	0.042867	-0.927034	1.319009	0.012644	0.389500	105
MALDIVES	-0.000144	-0.111379	0.020651	0.000405	0.864100	53
MALI	-0.016276	0.549212	0.407933	0.004950	0.362700	84
MALTA	-0.005683	0.608455	3.127546	0.063662	0.204400	48
MARSHALL ISLANDS	-0.135408	8.025656	0.892535	0.020809	0.087000	44
MAURITANIA	0.018892	-0.123266	0.038777	0.001759	0.613800	24
MAURITIUS	-0.006872	0.285015	0.332567	0.009977	0.454300	35
MEXICO	0.044292	-0.306635	5.472539	0.052383	0.040600	101

Country	α	β	F	R ²	p-value of β	N
MICRONESIA	-0.007014	1.569777	1.253619	0.032771	0.453600	39
MOLDOVA	0.171153	-0.661163	1.635827	0.020803	0.211100	79
MONGOLIA	0.431362	-3.254596	0.484034	0.011956	0.334600	42
MONTENEGRO	-0.010572	2.765210	5.209487	0.085109	0.030500	58
MONTSERRAT	0.100787	-1.409341	1.175030	0.020917	0.024000	57
MOROCCO	0.031733	-0.456242	0.262292	0.003958	0.563200	68
MOZAMBIQUE	-0.065492	-0.347014	0.018705	0.000467	0.893600	42
MYANMAR	0.291082	-3.865934	3.054047	0.169161	0.049500	17
NAMIBIA	0.055135	-0.664340	0.770194	0.037082	0.381300	22
NEPAL	0.030445	-0.975132	3.844227	0.058384	0.079100	64
NETHERLANDS	0.020964	-0.612840	0.841733	0.008875	0.319600	96
NEW ZEALAND	-0.002299	-0.357234	0.818420	0.009215	0.318000	90
NICARAGUA	0.034999	4.417614	1.792594	0.025685	0.252500	70
NIGER	-0.030088	0.858654	1.103053	0.013273	0.113800	84
NIGERIA	-0.030518	0.024487	0.002238	0.000048	0.959300	49
NORTH MACEDONIA	0.023928	-0.529545	0.614648	0.012909	0.510000	49
NORWAY	0.049174	-0.527875	2.993941	0.023953	0.169700	124
OMAN	0.009231	-0.501499	0.290304	0.004815	0.626800	62
PAKISTAN	0.089038	-0.881517	2.789293	0.039967	0.050200	69
PALAU	0.063706	2.945314	32.274870	0.440463	0.000000	43
PALESTINE	0.001075	0.192287	0.054745	0.001822	0.817300	32
PANAMA	0.010129	1.057587	5.636884	0.080947	0.110000	66
PAPUA NEW GUINEA	-0.255620	3.099141	1.152999	0.018854	0.084500	62

Country	α	β	F	R ²	p-value of β	N
PARAGUAY	0.987115	-18.538010	11.853580	0.258509	0.047300	36
PERU	0.023662	-0.588248	0.383590	0.008643	0.428500	46
PHILIPPINES	0.019405	-0.041317	0.027615	0.000226	0.876100	124
POLAND	-0.018132	0.210851	0.695260	0.007117	0.473500	99
PORTUGAL	-0.004879	0.404949	1.472506	0.013830	0.080400	107
PUERTO RICO	-0.157614	5.850834	2.486728	0.042518	0.378600	58
QATAR	-0.013674	0.540936	0.130289	0.002363	0.722200	57
REPUBLIC OF CONGO	0.104987	4.200346	0.280163	0.004726	0.386600	61
ROMANIA	0.009332	0.220485	4.246024	0.061318	0.015100	67
RUSSIAN FEDERATION	0.095880	-1.299070	4.770311	0.062958	0.037200	73
RWANDA	-0.133238	2.136409	19.360510	0.446501	0.000000	26
SAINT KITTS AND NEVIS	-0.030659	1.491531	2.592937	0.036731	0.045000	70
SAINT LUCIA	0.064388	-1.689999	2.895791	0.040846	0.082200	70
SAINT VINCENT AND THE GRENADINES	-0.033241	1.519112	4.011880	0.055711	0.020700	70
SAMOA	-0.027533	1.321382	2.463890	0.034477	0.000800	71
SAO TOME AND PRINCIPE	-0.030220	0.539415	3.753561	0.053051	0.027700	69
SAUDI ARABIA	0.018354	0.223457	0.124504	0.001516	0.693900	84
SENEGAL	0.005812	0.035566	0.002474	0.000030	0.928600	84
SERBIA	0.032910	-0.368097	0.443315	0.008966	0.583800	51
SEYCHELLES	0.125173	-2.987759	2.959342	0.063019	0.218900	46
SIERRA LEONE	0.036056	-3.592461	3.738702	0.078316	0.145900	46
SINGAPORE	0.006214	0.212487	0.225543	0.001861	0.623800	123
SLOVAKIA	0.016351	-0.389459	3.773727	0.036365	0.014800	102

Country	α	β	F	R ²	p-value of β	N
SLOVENIA	0.003194	-0.628244	0.389059	0.007426	0.759500	54
SOLOMON ISLANDS	-0.305571	-1.814330	0.135494	0.001960	0.271100	71
SOMALIA	-0.014967	0.060131	0.091871	0.001043	0.794300	90
SOUTH AFRICA	0.024053	-0.107312	0.083921	0.000830	0.780700	103
SOUTH KOREA	0.039939	-0.448753	1.974522	0.017634	0.083800	112
SOUTH SUDAN	1.397256	7.344030	1.333443	0.043959	0.185700	31
SPAIN	0.010535	-0.017145	0.003928	0.000032	0.939400	123
SRI LANKA	0.075488	-0.538564	0.812209	0.007900	0.450300	104
SUDAN	0.029548	-0.136498	0.003225	0.000111	0.937400	31
SURINAME	-0.293222	3.870088	1.242556	0.017945	0.255300	70
SWAZILAND	-0.206590	2.513177	0.102381	0.001503	0.393100	70
SWEDEN	-9.949447	0.582129	2.905009	0.023445	0.103200	123
SWITZERLAND	0.019300	-0.140570	0.189646	0.001565	0.594800	123
SYRIA	0.020384	0.123095	0.003359	0.000096	0.894600	37
TAIWAN	0.022135	-0.256637	0.267901	0.002191	0.586100	124
TAJIKISTAN	-0.162551	2.360543	0.263805	0.004042	0.662600	67
TANZANIA	-0.000960	0.317536	1.371914	0.033982	0.192000	41
THAILAND	0.070617	-2.655747	10.217780	0.149782	0.047500	60
TOGO	-0.039380	0.865773	91.019600	0.623338	0.000000	57
TONGA	0.035019	0.372583	0.132442	0.001916	0.587900	71
TRINIDAD & TOBAGO	0.001299	0.686182	3.369319	0.075938	0.056200	43
TUNISIA	0.009850	-0.164005	0.058228	0.001875	0.802400	33
TURKEY	-0.000325	0.175340	0.554084	0.008452	0.429200	67

Country	α	β	F	R ²	p-value of β	N
TURKMENISTAN	0.061495	-0.066878	0.175243	0.003296	0.664900	55
TUVALU	-0.004085	0.931739	73.678650	0.502313	0.000000	75
UGANDA	0.061355	-0.594222	1.519121	0.033373	0.242600	46
UKRAINE	-0.002488	-0.031297	0.004182	0.000116	0.932800	38
UNITED ARAB EMIRATES	0.020670	-0.952102	0.633913	0.011394	0.426200	57
UNITED KINGDOM OF GREAT BRITAIN & NORTHERN IRELAND	0.007361	0.022897	0.014756	0.000122	0.869700	123
UNITED STATES OF AMERICA	0.008311	0.164688	0.380051	0.003131	0.521800	123
URUGUAY	0.067954	-0.700833	0.176526	0.002589	0.462200	70
UZBEKISTAN	0.013496	-0.115260	0.491837	0.042799	0.334000	13
VANUATU	0.014948	0.748626	0.389853	0.005785	0.400900	69
VENEZUELA	-0.066438	0.968534	5.370855	0.100633	0.018700	50
VIETNAM	0.041977	-0.816184	1.008845	0.022414	0.154100	46
YEMEN	-0.275427	1.671638	5.352759	0.106305	0.002700	47
ZAMBIA	0.033356	-0.030619	0.065164	0.000892	0.653700	75
ZIMBABWE	0.087254	-0.141494	0.108317	0.003854	0.719000	30

Attachment 4.1 - Descriptive Statistics for β

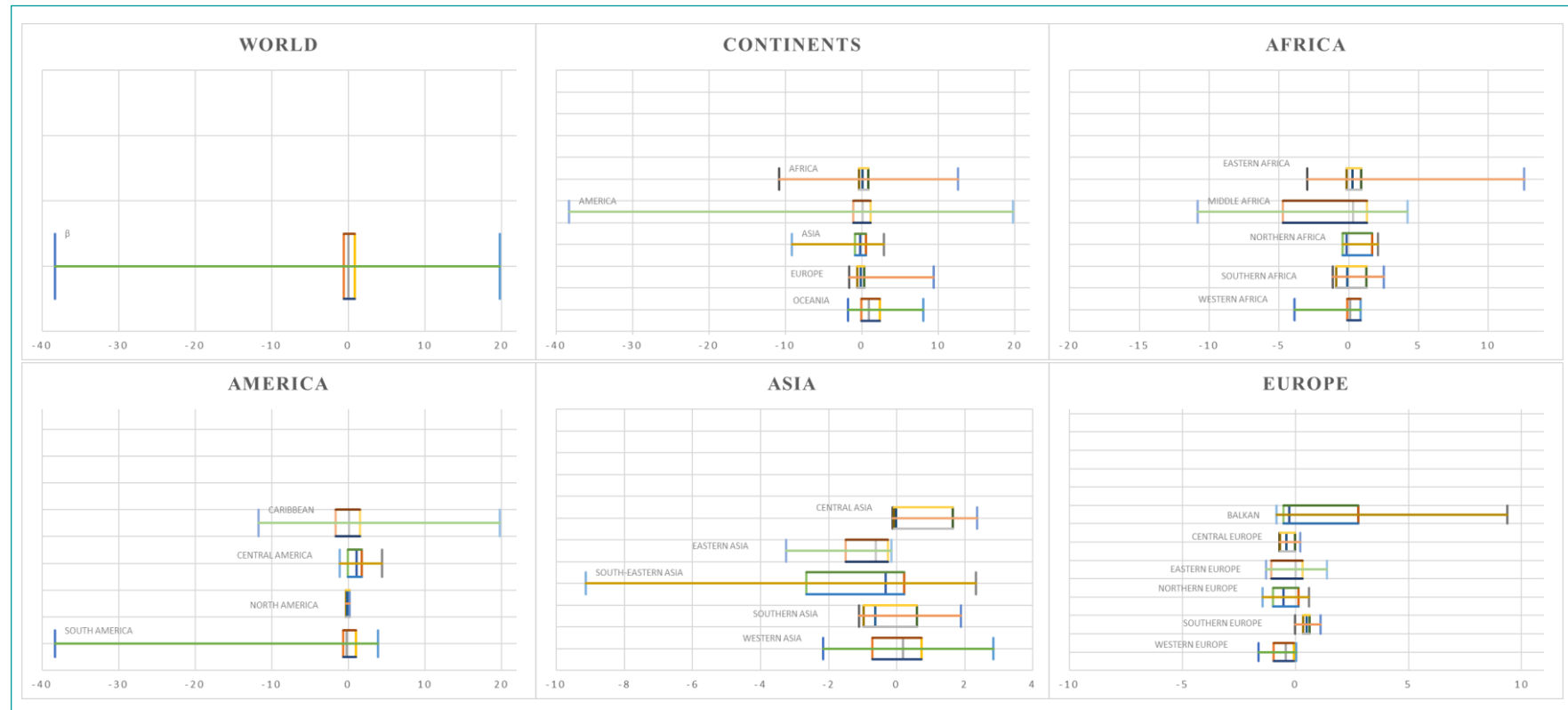
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	-0.101223	-0.020388	-38.384800	19.785590	58.170390	16.957432	4.117940	-4068%
AFRICA	0.148817	0.070531	-10.807610	12.569010	23.376620	8.794276	2.965515	1993%
EASTERN AFRICA	1.150955	0.285015	-2.987759	12.569010	15.556769	11.409269	3.377761	293%
MIDDLE AFRICA	-1.598729	0.308071	-10.807610	4.200346	15.007956	20.846568	4.565804	-286%
NORTHERN AFRICA	0.459452	-0.164005	-0.456242	2.094489	2.550731	1.323564	1.150462	250%
SOUTHERN AFRICA	0.120428	-0.107312	-1.164520	2.513177	3.677697	2.013287	1.418903	1178%
WESTERN AFRICA	-0.146429	0.092723	-3.879049	0.865773	4.744822	2.144136	1.464287	-1000%
AMERICA	-0.788707	0.065865	-38.384800	19.785590	58.170390	60.587117	7.783773	-987%
CARIBBEAN	0.621497	0.082581	-11.791000	19.785590	31.576590	33.714755	5.806441	934%
CENTRAL AMERICA	1.077848	1.021261	-1.176276	4.417614	5.593890	3.026102	1.739569	161%
NORTH AMERICA	-0.105767	-0.175353	-0.306635	0.164688	0.471323	0.059168	0.243245	-230%
SOUTH AMERICA	-4.398605	-0.134666	-38.384800	3.870088	42.254888	145.752658	12.072807	-274%
ASIA	-0.364613	-0.256637	-9.140941	2.838445	11.979386	3.446839	1.856566	-509%
CENTRAL ASIA	0.184117	-0.043633	-0.115260	0.938994	1.054254	0.254762	0.504740	274%

EASTERN ASIA	-1.047380	-0.615705	-3.254596	-0.157780	3.096816	1.174139	1.083577	-103%
SOUTH-EASTERN ASIA	-1.208278	-0.319172	-9.140941	2.333722	11.474663	10.153914	3.186521	-264%
SOUTHERN ASIA	-0.231101	-0.626304	-1.106514	1.891277	2.997791	1.036993	1.018328	-441%
WESTERN ASIA	0.083805	0.183814	-2.158343	2.838445	4.996788	1.491498	1.221269	1457%
EUROPE	0.105850	-0.190648	-1.646210	9.363241	11.009451	2.869136	1.693852	1600%
BALKAN	1.381037	-0.279373	-0.839632	9.363241	10.202873	11.908689	3.450897	250%
CENTRAL EUROPE	-0.349187	-0.406893	-0.715512	0.210851	0.926363	0.114605	0.338533	-97%
EASTERN EUROPE	-0.138100	0.003638	-1.299070	1.387523	2.686593	0.746551	0.864032	-626%
NORTHERN EUROPE	-0.457325	-0.527875	-1.462318	0.582129	2.044447	0.530067	0.728057	-159%
SOUTHERN EUROPE	0.499767	0.489745	-0.017145	1.102996	1.120141	0.137618	0.370969	74%
WESTERN EUROPE	-0.587023	-0.421803	-1.646210	0.022897	1.669107	0.405900	0.637103	-109%
OCEANIA	1.420959	0.931739	-1.814330	8.025656	9.839986	5.723648	2.392415	168%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	-3.943935	42.321879	199	0.291913	-0.622890	-0.020388	0.851498	8.54%	18.09%	24.62%
AFRICA	0.479949	8.683148	54	0.403555	-0.421893	0.070531	0.852408	14.81%	18.52%	22.22%
EASTERN AFRICA	2.628188	7.635120	19	0.774912	-0.141494	0.285015	0.903204	15.79%	15.79%	21.05%
MIDDLE AFRICA	-1.028607	0.919190	9	1.521935	-4.733000	0.308071	1.300010	0.00%	11.11%	22.22%
NORTHERN AFRICA	0.864922	-1.588862	5	0.514502	-0.439068	-0.164005	1.669700	0.00%	20.00%	20.00%
SOUTHERN AFRICA	1.616330	3.067038	5	0.634553	-0.914430	-0.107312	1.269156	20.00%	20.00%	20.00%
WESTERN AFRICA	-2.114422	3.674619	16	0.366072	-0.123266	0.092723	0.851498	25.00%	25.00%	25.00%
AMERICA	-2.744309	14.426503	42	1.201062	-1.163119	0.065865	1.098461	4.76%	23.81%	28.57%
CARIBBEAN	1.536113	6.665920	20	1.298360	-1.689999	0.082581	1.519112	5.00%	30.00%	40.00%
CENTRAL AMERICA	1.083521	2.351737	7	0.657495	-0.059989	1.021261	1.696844	14.29%	14.29%	14.29%
NORTH AMERICA	1.181984		3	0.140437	-0.306635	-0.175353	0.164688	0.00%	33.33%	33.33%
SOUTH AMERICA	-2.522577	6.222805	12	3.485119	-0.700833	-0.236320	0.968534	0.00%	16.67%	16.67%
ASIA	-2.189054	9.747194	49	0.265224	-0.939568	-0.256637	0.522260	8.16%	14.29%	22.45%
CENTRAL ASIA	1.964722	3.883045	4	0.252370	-0.091069	-0.020388	1.649769	0.00%	25.00%	25.00%

EASTERN ASIA	-1.715839	3.048730	7	0.409554	-1.505191	-0.615705	-0.256637	0.00%	0.00%	14.29%
SOUTH-EASTERN ASIA	-1.627438	3.504531	11	0.960772	-2.655747	-0.319172	0.212487	9.09%	27.27%	27.27%
SOUTHERN ASIA	1.553034	2.074372	8	0.360033	-0.975132	-0.626304	0.587061	0.00%	0.00%	25.00%
WESTERN ASIA	0.206370	0.467049	18	0.287856	-0.715317	0.183814	0.736418	16.67%	16.67%	22.22%
EUROPE	4.315524	22.969253	41	0.264535	-0.620542	-0.190648	0.323996	0.00%	14.63%	21.95%
BALKAN	2.211809	5.083596	8	1.220076	-0.529545	-0.279373	2.765210	0.00%	12.50%	25.00%
CENTRAL EUROPE	0.543432	-0.987933	8	0.119690	-0.689053	-0.406893	-0.017182	0.00%	12.50%	25.00%
EASTERN EUROPE	0.339665	0.125385	8	0.305481	-1.083033	0.003638	0.323184	0.00%	37.50%	37.50%
NORTHERN EUROPE	0.117693	1.733625	5	0.325597	-1.005757	-0.527875	0.126382	0.00%	20.00%	20.00%
SOUTHERN EUROPE	0.451788	1.326948	6	0.151447	0.324807	0.489745	0.608455	0.00%	0.00%	16.67%
WESTERN EUROPE	-0.979466	0.131661	6	0.260096	-0.975366	-0.421803	-0.079851	0.00%	0.00%	0.00%
OCEANIA	1.789686	4.688053	13	0.663536	-0.053273	0.931739	2.340835	23.08%	23.08%	38.46%

Attachment 4.2 – Box Plot of β



Attachment 4.3 - Descriptive Statistics for R-Squared

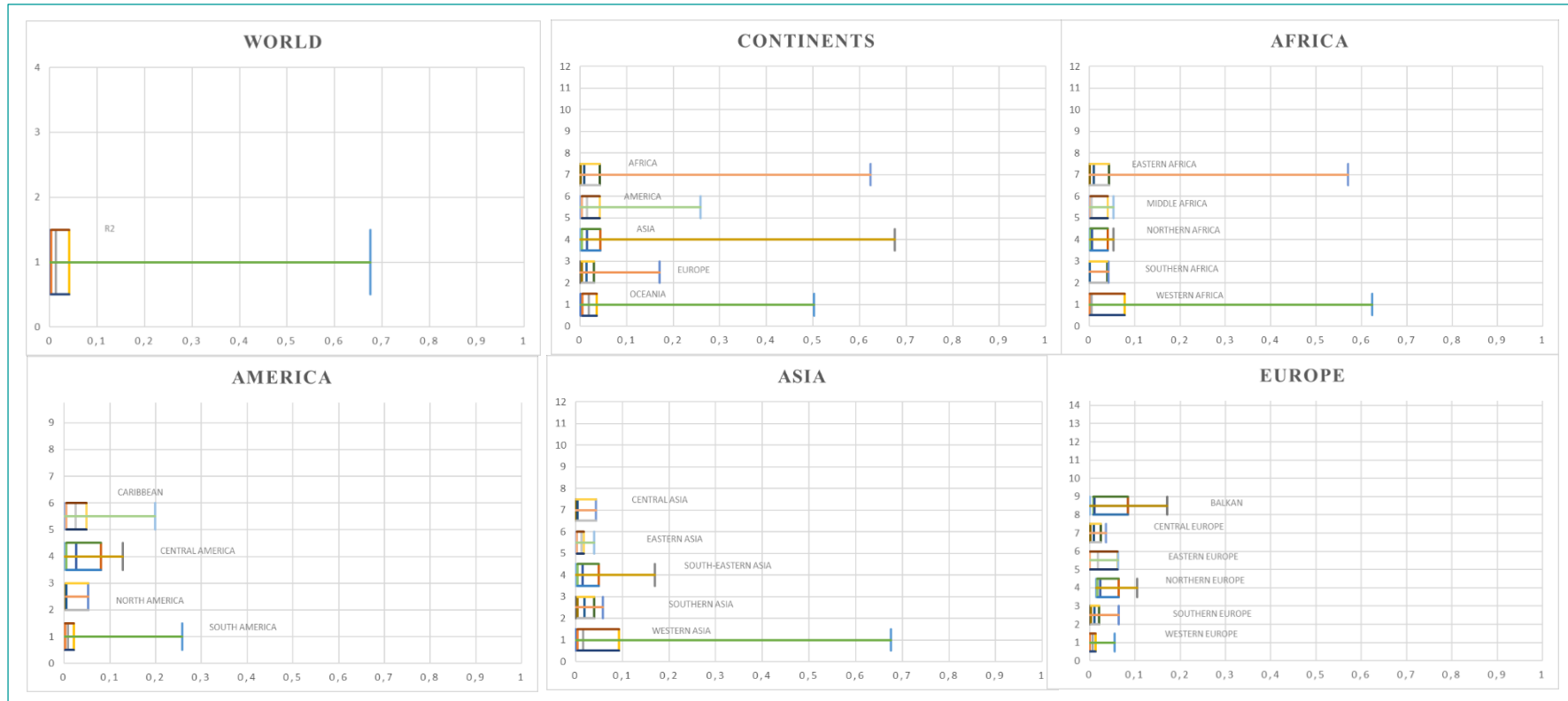
	Mean	Median	Mode	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.047360	0.012616	0.000032	0.000005	0.676029	0.676024	0.011350	0.106538	224.95%
AFRICA	0.065453	0.008233		0.000030	0.623338	0.623308	0.021720	0.147377	225.16%
EASTERN AFRICA	0.075659	0.009977		0.000057	0.570682	0.570625	0.025062	0.158310	209.24%
MIDDLE AFRICA	0.017973	0.005120		0.000108	0.053051	0.052943	0.000429	0.020709	115.22%
NORTHERN AFRICA	0.018841	0.006734		0.001875	0.053372	0.051497	0.000484	0.022006	116.80%
SOUTHERN AFRICA	0.016233	0.001503		0.000032	0.041720	0.041688	0.000450	0.021219	130.71%
WESTERN AFRICA	0.109989	0.007908		0.000030	0.623338	0.623308	0.041060	0.202632	184.23%
AMERICA	0.035199	0.014974		0.000005	0.258509	0.258504	0.002834	0.053233	151.24%
CARIBBEAN	0.034707	0.024778		0.000188	0.199206	0.199018	0.002012	0.044854	129.24%
CENTRAL AMERICA	0.039712	0.025685		0.000005	0.128715	0.128710	0.002292	0.047877	120.56%
NORTH AMERICA	0.020017	0.004537		0.003131	0.052383	0.049252	0.000786	0.028039	140.07%
SOUTH AMERICA	0.037180	0.008379		0.000208	0.258509	0.258301	0.005613	0.074923	201.51%
ASIA	0.046362	0.014768		0.000008	0.676029	0.676021	0.010726	0.103569	223.39%
CENTRAL ASIA	0.018696	0.004042		0.000008	0.043333	0.043325	0.000497	0.022300	119.28%
EASTERN ASIA	0.012534	0.011956		0.001089	0.039686	0.038597	0.000183	0.013546	108.08%

SOUTH-EASTERN ASIA	0.041877	0.015068		0.000226	0.169161	0.168935	0.003581	0.059838	142.89%
SOUTHERN ASIA	0.023504	0.018890		0.000405	0.058384	0.057979	0.000430	0.020727	88.18%
WESTERN ASIA	0.080102	0.016370		0.000096	0.676029	0.675933	0.025661	0.160190	199.98%
EUROPE	0.024948	0.013496		0.000032	0.170774	0.170742	0.001156	0.034003	136.30%
BALKAN	0.041336	0.011241		0.000693	0.170774	0.170081	0.003477	0.058967	142.65%
CENTRAL EUROPE	0.013341	0.008991		0.000079	0.036365	0.036286	0.000155	0.012431	93.18%
EASTERN EUROPE	0.026112	0.017966		0.000116	0.062958	0.062842	0.000712	0.026692	102.22%
NORTHERN EUROPE	0.037134	0.023445		0.014977	0.105029	0.090052	0.001454	0.038137	102.70%
SOUTHERN EUROPE	0.017778	0.010098		0.000032	0.063662	0.063630	0.000561	0.023688	133.24%
WESTERN EUROPE	0.014033	0.007069		0.000122	0.055733	0.055611	0.000443	0.021042	149.95%
OCEANIA	0.085939	0.018854		0.001916	0.502313	0.500397	0.029585	0.172003	200.14%

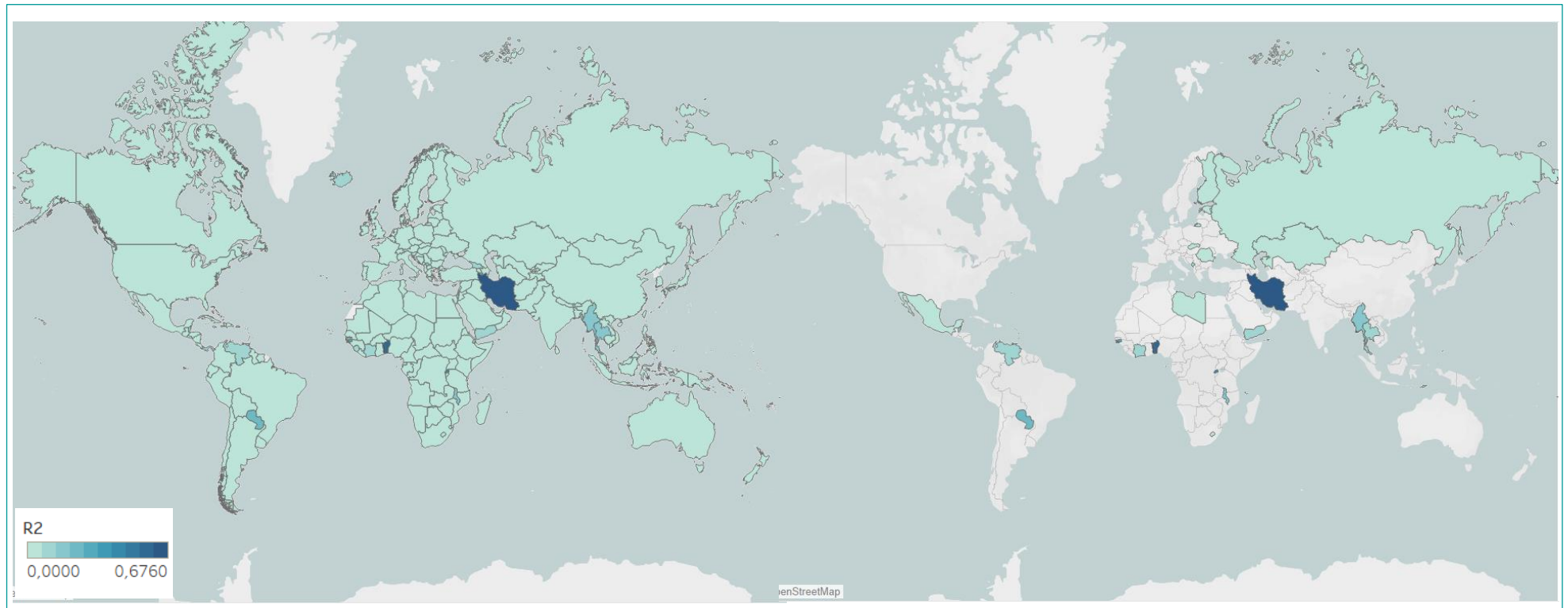
	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	4.080896	17.542884	199	0.007552	0.003092	0.012616	0.040846
AFRICA	2.949725	7.789304	54	0.020055	0.001503	0.008233	0.041720
EASTERN AFRICA	2.638840	6.225718	19	0.036319	0.001043	0.009977	0.043959
MIDDLE AFRICA	0.890400	-1.188742	9	0.006903	0.002685	0.005120	0.040728
NORTHERN AFRICA	1.253404	0.437979	5	0.009842	0.002917	0.006734	0.040818
SOUTHERN AFRICA	0.632997	-3.170952	5	0.009489	0.000431	0.001503	0.039401
WESTERN AFRICA	2.003147	2.900630	16	0.050658	0.000738	0.004950	0.078316
AMERICA	2.751512	8.487185	42	0.008214	0.003727	0.014974	0.042518
CARIBBEAN	2.798285	9.724633	20	0.010030	0.004279	0.024778	0.049470
CENTRAL AMERICA	1.344065	0.885952	7	0.018096	0.004876	0.025685	0.080947
NORTH AMERICA	1.727152		3	0.016188	0.003131	0.004537	0.052383
SOUTH AMERICA	2.805586	8.094601	12	0.021628	0.002589	0.008643	0.021203
ASIA	5.035213	29.393389	49	0.014796	0.003312	0.014768	0.043066
CENTRAL ASIA	0.587438	-3.297337	5	0.009973	0.001652	0.004042	0.043066
EASTERN ASIA	1.554023	2.676278	7	0.005120	0.002191	0.011956	0.017634

SOUTH-EASTERN ASIA	1.737769	1.665898	11	0.018042	0.003512	0.015068	0.049538
SOUTHERN ASIA	0.575758	-0.915379	8	0.007328	0.003327	0.018890	0.040272
WESTERN ASIA	3.397262	12.548165	18	0.037757	0.003817	0.016370	0.092790
EUROPE	2.568233	8.013596	41	0.005310	0.004178	0.013496	0.029441
BALKAN	1.913048	3.355064	8	0.020848	0.008059	0.011241	0.085109
CENTRAL EUROPE	0.921438	0.118597	8	0.004395	0.001565	0.008991	0.024272
EASTERN EUROPE	0.521817	-1.715447	8	0.009437	0.000235	0.017966	0.061318
NORTHERN EUROPE	2.182377	4.812290	5	0.017055	0.016622	0.023445	0.064491
SOUTHERN EUROPE	1.939220	3.984371	6	0.009670	0.002507	0.010098	0.020274
WESTERN EUROPE	2.145994	4.817409	6	0.008590	0.000707	0.007069	0.013496
OCEANIA	2.178527	3.346164	13	0.047705	0.005106	0.018854	0.036446

Attachment 4.4 – Box Plot of R-Squared



Attachment 4.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN	0.072327	-0.473057	0.016312	0.000340	0.766200	50
ALBANIA	0.529052	-2.486421	0.030153	0.000520	0.769800	60
ALGERIA	0.017311	-0.049908	0.000551	0.000009	0.958400	66
ANGOLA	0.038215	0.922646	0.074037	0.002637	0.876000	30
ANGUILLA	-0.132745	17.423500	2.813863	0.051335	0.296900	54
ANTIGUA & BARBUDA	-0.225162	-0.366139	0.000404	0.000008	0.945200	54
ARGENTINA	0.030191	0.341766	0.516431	0.008005	0.049800	66
ARMENIA	0.051548	0.946192	11.461120	0.149895	0.030700	67
ARUBA	0.081191	-3.471113	3.406424	0.099005	0.000000	33
AUSTRALIA	0.007877	-0.161194	0.031018	0.000256	0.898900	123
AUSTRIA	0.003436	-0.381377	0.129130	0.001162	0.689700	113
AZERBAIJAN	0.040284	0.098782	0.037726	0.000554	0.838500	70
BAHAMAS	-0.206144	14.461080	0.530704	0.016314	0.288300	34
BAHRAIN	-0.019295	-1.925952	1.070410	0.046398	0.333100	24
BANGLADESH	-0.010234	-0.677673	0.767042	0.033691	0.397800	24
BARBADOS	0.013508	0.026156	0.001192	0.000019	0.942000	64
BELARUS	0.019643	0.614371	2.167857	0.042368	0.298500	51
BELGIUM	0.003734	0.783852	0.112945	0.002013	0.708100	58
BELIZE	0.026439	0.741628	3.536205	0.049432	0.040000	70

BENIN	0.028718	0.453284	32.305120	0.357733	0.000100	60
BERMUDA	0.381003	7.041811	71.947620	0.517804	0.000000	69
BHUTAN	0.034690	-0.317885	0.009628	0.000144	0.870400	69
BOLIVIA	0.010340	0.104521	0.047585	0.000720	0.810800	68
BOSNIA & HERZEGOVINA	-0.020191	-0.975223	0.974848	0.027873	0.121800	36
BOTSWANA	-0.045138	-2.616054	2.743326	0.062714	0.040600	43
BRAZIL	0.018850	-0.530503	3.272022	0.033987	0.098800	95
BRUNEI	0.124014	-1.594215	0.014565	0.000231	0.312700	65
BULGARIA	0.018300	-2.828997	6.278827	0.089342	0.039000	66
BURKINA FASO	0.004890	-0.304876	0.196874	0.003633	0.651000	56
BURUNDI	-0.001194	0.152327	0.060511	0.001286	0.617500	49
CAMBODIA	0.020832	-1.229016	0.175080	0.002606	0.549700	69
CAMEROON	0.038227	0.815124	0.007964	0.000123	0.599300	67
CANADA	0.011305	-1.100907	2.819747	0.022773	0.133100	123
CAPE VERDE	0.021623	3.310797	16.055850	0.191014	0.000700	70
CAYMAN ISLANDS	0.013494	-1.703118	1.255568	0.059070	0.095800	22
CENTRAL AFRICAN REPUBLIC	0.021089	0.802503	0.819228	0.013695	0.215700	61
CHAD	0.144796	-6.601501	4.388912	0.069238	0.167100	61
CHILE	0.007998	-0.342515	0.284681	0.003732	0.754000	78
CHINA	0.029400	-0.598670	0.337219	0.004935	0.568000	70

COLOMBIA	0.019045	-0.735196	1.732015	0.016228	0.264700	107
COMOROS	0.001918	0.537501	82.057400	0.550509	0.000000	69
COSTA RICA	-0.064257	5.345740	0.465183	0.006794	0.020800	70
CROATIA	0.002420	-0.629623	0.590634	0.011231	0.298000	54
CUBA	0.020291	9.683034	3.663671	0.207413	0.007600	16
CURACAO	-0.031271	1.573076	0.488266	0.015506	0.548700	33
CYPRUS	-0.009493	-0.913240	0.429908	0.007358	0.657600	60
CZECH REPUBLIC	0.007196	-0.594851	0.649334	0.006718	0.579300	98
DEMOCRATIC REPUBLIC OF CONGO	0.442968	-2.094050	0.131697	0.002794	0.348400	49
DENMARK	0.021518	-1.149447	2.378706	0.019280	0.087000	123
DJIBOUTI	0.009221	-0.020269	0.000096	0.000002	0.992500	46
DOMINICA	0.004794	1.792687	5.567669	0.075681	0.003700	70
DOMINICAN REPUBLIC	0.001606	1.271831	0.029506	0.000427	0.610600	71
EAST TIMOR	0.033140	-0.002270	0.000003	0.000000	0.995500	66
ECUADOR	0.005276	1.110347	0.088210	0.001956	0.760700	47
EGYPT	0.022183	-0.671003	0.778860	0.008395	0.309400	94
EL SALVADOR	0.021847	-0.781097	0.761297	0.010913	0.417600	71
EQUATORIAL GUINEA	-0.338325	27.392280	0.083525	0.001414	0.530800	61
ERITREA	-0.014044	1.401282	2.112430	0.023185	0.252000	91
ESTONIA	0.033630	-2.722180	9.605058	0.095473	0.006100	93

ETHIOPIA	-0.007852	0.521606	0.242424	0.004731	0.510100	53
FIJI	0.016634	-0.511954	0.082634	0.001399	0.504400	61
FINLAND	0.019037	-1.961530	1.950814	0.015739	0.245900	124
FRANCE	0.011215	-0.195762	0.018539	0.000153	0.880800	123
GABON	0.006637	0.585005	0.369968	0.005660	0.371400	67
GAMBIA	-0.075849	1.697756	0.039721	0.000794	0.731200	52
GEORGIA	0.037217	0.513413	0.258844	0.006125	0.694400	44
GERMANY	0.022821	-0.092604	0.003614	0.000038	0.949000	98
GHANA	0.001322	0.360604	0.321499	0.009648	0.217500	35
GREECE	0.015665	0.769518	1.717095	0.013992	0.060100	123
GRENADA	0.008891	-0.137287	0.028770	0.000423	0.877900	70
GUATEMALA	0.023549	2.452049	0.629072	0.009035	0.376100	71
GUINEA	-0.023739	0.032848	0.003885	0.000072	0.953500	56
GUINEA-BISSAU	0.006528	0.410244	13.430910	0.199180	0.000200	56
GUYANA	1.847967	-12.578360	0.032630	0.000473	0.338000	71
HAITI	0.297770	-19.439870	8.203647	0.136265	0.068700	54
HONDURAS	0.053179	2.022067	0.508816	0.007427	0.303000	70
HONG KONG	0.015074	-2.983166	6.778366	0.055661	0.006000	117
HUNGARY	0.024301	0.467080	0.692560	0.006314	0.331400	111
ICELAND	0.009465	-0.031314	0.000909	0.000011	0.980400	84

INDIA	0.019510	-0.033087	0.001135	0.000024	0.961700	50
INDONESIA	0.017801	-0.450116	0.705525	0.007610	0.587500	94
IRAN	0.069426	0.480730	9.803670	0.209464	0.078200	39
IRAQ	-0.028871	-1.243644	2.400825	0.146384	0.138900	16
IRELAND	0.012546	-1.075484	1.752833	0.014279	0.179300	123
ISRAEL	0.007229	-1.312166	1.474202	0.046838	0.396700	32
ITALY	0.001828	0.714889	1.623788	0.018745	0.113600	87
IVORY COAST	0.000355	0.371018	2.221147	0.026373	0.163800	84
JAMAICA	0.043692	-1.582728	20.722090	0.147255	0.004000	122
JAPAN	0.003438	1.307286	1.481565	0.011998	0.167400	124
JORDAN	-0.018890	-1.356386	5.955840	0.099337	0.113100	56
KAZAKHSTAN	0.016754	-1.480025	1.663700	0.033499	0.471700	50
KENYA	-0.014384	-0.355443	0.626982	0.015433	0.390900	42
KIRIBATI	0.018353	0.587618	4.372751	0.148871	0.015000	27
KOSOVO	0.015073	1.151936	3.077145	0.102308	0.069300	29
KUWAIT	-0.000097	-1.484659	0.647332	0.011633	0.356900	57
KYRGYZSTAN	0.102316	-2.509247	3.929200	0.083726	0.058700	45
LAOS	-0.012964	-0.719131	5.821191	0.167174	0.007400	31
LATVIA	0.007830	1.661873	1.593853	0.047445	0.136300	34
LEBANON	0.002084	-0.622314	0.442499	0.004893	0.416100	92

LESOTHO	0.010370	3.267647	4.022147	0.055846	0.006300	70
LIBERIA	0.041355	0.539339	0.117567	0.005567	0.712800	23
LIBYA	0.014818	0.379741	0.285690	0.004310	0.522500	68
LITHUANIA	0.029855	0.288803	0.138992	0.001802	0.671900	79
LUXEMBOURG	0.002435	1.378843	0.993149	0.013989	0.293700	72
MACAU	0.025244	-0.384578	0.003434	0.000093	0.952800	39
MADAGASCAR	0.207158	8.304462	0.203558	0.003899	0.541700	54
MALAWI	0.026152	0.293040	1.419202	0.032686	0.173500	44
MALAYSIA	0.007273	-4.944689	15.121150	0.129107	0.099500	104
MALDIVES	0.000181	-0.205101	0.061931	0.001237	0.774400	52
MALI	0.008165	0.752619	0.954112	0.011502	0.064100	84
MALTA	-0.001415	0.525214	3.901626	0.079785	0.007700	47
MARSHALL ISLANDS	-0.098137	7.854692	0.804862	0.019253	0.033900	43
MAURITANIA	0.017995	0.339918	0.474445	0.023173	0.343700	22
MAURITIUS	-0.003419	0.768363	5.067531	0.136711	0.000100	34
MEXICO	0.014155	-1.172103	26.682700	0.214005	0.000000	100
MICRONESIA	-0.005583	1.211884	0.419963	0.011223	0.309000	39
MOLDOVA	0.101693	-0.938529	0.959515	0.012308	0.173700	79
MONGOLIA	0.002595	2.806416	0.148231	0.003786	0.343600	41
MONTENEGRO	0.057015	-2.848809	1.409226	0.024982	0.252900	57

MONTSERRAT	0.021198	0.063907	0.001209	0.000022	0.944700	56
MOROCCO	0.017212	-0.675549	0.459249	0.007125	0.364100	66
MOZAMBIQUE	-0.101701	4.829461	0.957313	0.023958	0.215600	41
MYANMAR	0.069918	-1.023327	0.275865	0.019324	0.494900	16
NAMIBIA	0.013476	0.815682	1.881817	0.090118	0.030300	21
NEPAL	0.019940	0.117237	0.080777	0.001301	0.787000	64
NETHERLANDS	0.011605	0.612381	0.354655	0.003799	0.616700	95
NEW ZEALAND	-0.012045	3.148943	11.123080	0.113358	0.029700	89
NICARAGUA	0.093096	-0.607741	0.013583	0.000200	0.826600	70
NIGER	0.006919	1.002606	1.753685	0.020939	0.024200	84
NIGERIA	-0.028010	-0.459750	1.373982	0.029003	0.183200	48
NORTH MACEDONIA	-0.006156	-1.721698	3.846363	0.077164	0.085400	48
NORWAY	0.024563	-2.336209	8.806459	0.067324	0.014500	124
OMAN	0.003661	-2.601509	3.704729	0.059082	0.128800	61
PAKISTAN	0.030732	-1.673208	3.416412	0.049216	0.209100	68
PALAU	0.016367	0.543704	0.119692	0.002911	0.776800	43
PALESTINE	0.002183	0.662973	0.777506	0.025262	0.261400	32
PANAMA	0.026161	2.122459	2.596063	0.039577	0.179300	65
PAPUA NEW GUINEA	-0.084846	6.588638	4.889741	0.079007	0.124400	59
PARAGUAY	0.034309	-0.577068	0.021131	0.000640	0.808800	35

PERU	0.013750	-4.524941	18.488510	0.300682	0.000100	45
PHILIPPINES	0.015042	-1.703928	7.410532	0.057264	0.016000	124
POLAND	-0.003628	0.928806	0.834994	0.008623	0.340600	98
PORTUGAL	0.005494	-0.194040	0.091382	0.000870	0.685200	107
PUERTO RICO	0.064662	1.430524	0.104136	0.001890	0.776800	57
QATAR	0.009712	0.319833	0.010390	0.000189	0.923000	57
REPUBLIC OF CONGO	0.230500	4.949391	0.621766	0.010429	0.403200	61
ROMANIA	0.038708	0.106258	0.134793	0.002069	0.737200	67
RUSSIAN FEDERATION	0.021799	-4.230818	38.551440	0.355144	0.003400	72
RWANDA	-0.023200	0.391559	0.685608	0.027774	0.305900	26
SAINT KITTS AND NEVIS	0.025148	0.298750	0.091397	0.001342	0.474100	70
SAINT LUCIA	0.014066	-1.448392	1.861660	0.026648	0.181300	70
SAINT VINCENT AND THE GRENADINES	0.007625	1.002316	0.695236	0.010121	0.255800	70
SAMOA	0.008747	0.208980	0.128090	0.001853	0.606300	71
SAO TOME AND PRINCIPE	0.011033	0.434368	0.753768	0.011125	0.322900	69
SAUDI ARABIA	0.023149	-0.088743	0.004297	0.000052	0.931200	84
SENEGAL	0.007509	0.382591	0.419015	0.005084	0.446900	84
SERBIA	0.000771	-0.633383	0.315078	0.006389	0.518600	51
SEYCHELLES	0.008290	1.424363	0.594337	0.013633	0.489600	45
SIERRA LEONE	-0.321902	-15.260850	8.300097	0.161795	0.076000	45

SINGAPORE	0.010007	-0.940488	0.846100	0.006944	0.485300	123
SLOVAKIA	0.004200	0.388196	1.205400	0.012029	0.303300	101
SLOVENIA	-0.000748	-0.425875	0.233486	0.004470	0.630900	54
SOLOMON ISLANDS	-0.360565	-6.037734	1.019889	0.014566	0.267000	71
SOMALIA	0.005560	0.234045	0.121932	0.001384	0.693300	90
SOUTH AFRICA	0.015668	-0.798396	0.673984	0.006629	0.566600	103
SOUTH KOREA	0.014796	-1.115633	1.426970	0.012922	0.190600	111
SOUTH SUDAN	0.553943	-3.285906	0.224419	0.007951	0.493700	30
SPAIN	0.009568	-0.394113	0.319787	0.002636	0.484700	123
SRI LANKA	0.026917	-0.812574	0.401691	0.003961	0.428000	103
SUDAN	0.007615	0.071462	0.001485	0.000053	0.923900	30
SURINAME	-0.088930	-8.632091	6.753857	0.090348	0.113400	70
SWAZILAND	-0.141722	2.206226	0.050251	0.000738	0.757100	70
SWEDEN	-9.935525	-3.596334	15.229670	0.112621	0.004300	122
SWITZERLAND	0.016921	0.009957	0.000166	0.000001	0.986400	123
SYRIA	0.026098	0.776553	0.330863	0.009365	0.120800	37
TAIWAN	0.013524	0.366778	0.137937	0.001129	0.731900	124
TAJIKISTAN	0.271616	-3.485293	1.054522	0.016463	0.133400	65
TANZANIA	0.019995	-0.064201	0.090530	0.002377	0.487200	40
THAILAND	0.014183	-1.988206	5.616018	0.089690	0.093700	59

TOGO	0.012718	0.425694	39.350710	0.421536	0.000000	56
TONGA	0.046854	-1.997780	6.219368	0.082683	0.020000	71
TRINIDAD & TOBAGO	0.003811	-0.180546	0.223745	0.005428	0.520900	43
TUNISIA	-0.004468	3.415763	5.233202	0.148530	0.005000	32
TURKEY	0.015456	-1.094692	4.641699	0.067622	0.043800	66
TURKMENISTAN	0.057399	-0.114058	0.117118	0.002247	0.762500	54
TUVALU	0.000933	0.570683	14.499580	0.165710	0.000000	75
UGANDA	0.006412	-1.575325	5.856825	0.119877	0.003300	45
UKRAINE	-0.007862	0.685737	0.961587	0.026739	0.146300	37
UNITED ARAB EMIRATES	0.001349	-5.297897	8.780833	0.137672	0.039300	57
UNITED KINGDOM	0.009220	0.983997	2.057291	0.016718	0.315200	123
UNITED STATES OF AMERICA	0.011950	-0.178512	0.041478	0.000343	0.828200	123
URUGUAY	-0.001602	0.105434	0.000844	0.000012	0.942400	70
UZBEKISTAN	0.000058	0.224361	0.509562	0.044273	0.288700	13
VANUATU	0.020069	0.692463	0.120401	0.001794	0.542300	69
VENEZUELA	0.017349	0.723832	2.653301	0.052382	0.101300	50
VIETNAM	0.006372	1.743199	1.742807	0.038952	0.160800	45
YEMEN	-0.062798	0.648997	0.623322	0.013662	0.004200	47
ZAMBIA	0.028100	-0.339669	0.855317	0.011740	0.116500	74
ZIMBABWE	0.059491	-0.929731	0.802786	0.028874	0.237600	29

Attachment 5.1 - Descriptive Statistics for β

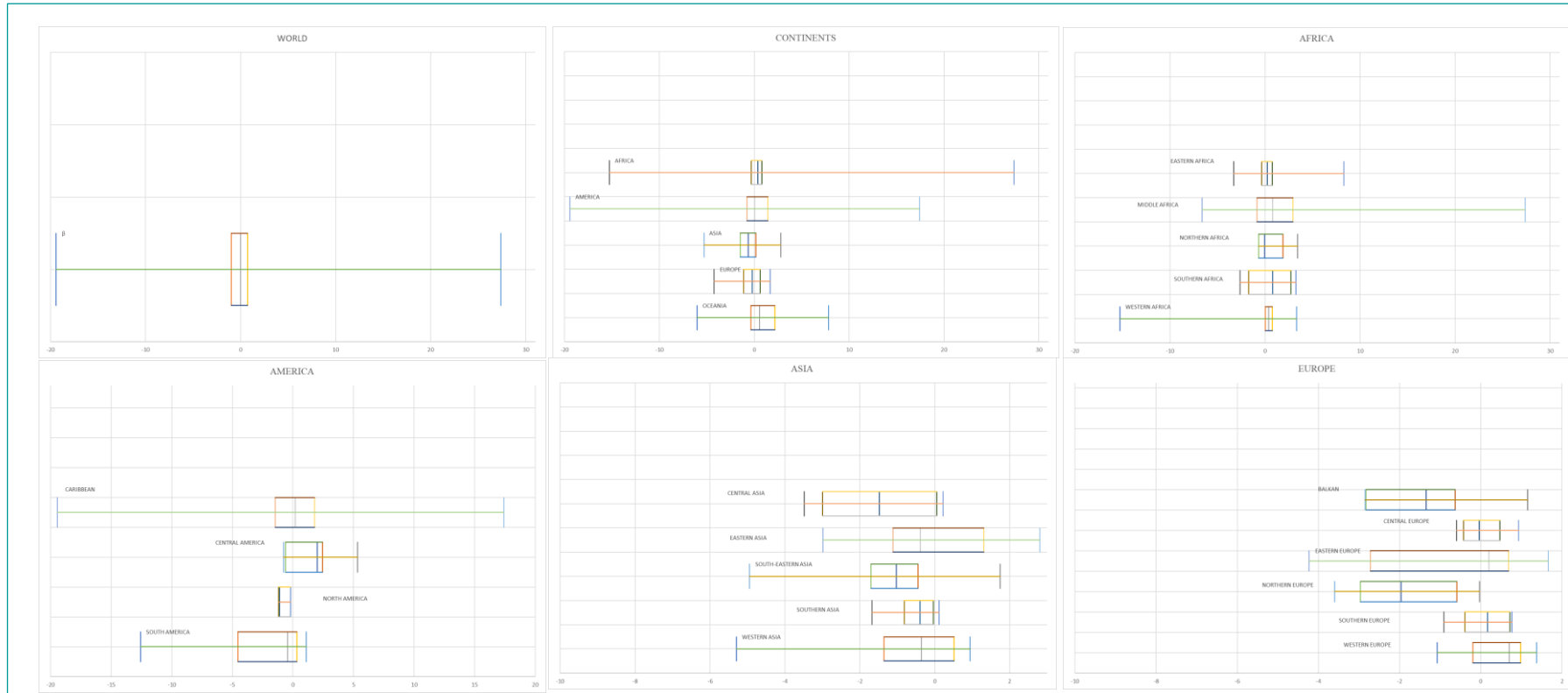
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.019497	-0.002270	-19.439870	27.392280	46.832150	15.043091	3.878542	19892.98%
AFRICA	0.720235	0.387075	-15.260850	27.392280	42.653130	22.566461	4.750417	659.56%
EASTERN AFRICA	0.650470	0.234045	-3.285906	8.304462	11.590368	5.783566	2.404905	369.72%
MIDDLE AFRICA	3.022863	0.802503	-6.601501	27.392280	33.993781	92.906207	9.638787	318.86%
NORTHERN AFRICA	0.479809	-0.049908	-0.675549	3.415763	4.091312	2.892415	1.700710	354.46%
SOUTHERN AFRICA	0.575021	0.815682	-2.616054	3.267647	5.883701	5.509554	2.347244	408.20%
WESTERN AFRICA	-0.371635	0.396418	-15.260850	3.310797	18.571647	16.518668	4.064316	-1093.63%
AMERICA	0.263054	0.045032	-19.439870	17.423500	36.863370	33.291258	5.769858	2193.41%
CARIBBEAN	1.386974	0.181329	-19.439870	17.423500	36.863370	53.982766	7.347297	529.74%
CENTRAL AMERICA	1.613586	2.022067	-0.781097	5.345740	6.126837	4.414486	2.101068	130.21%
NORTH AMERICA	-0.817174	-1.100907	-1.172103	-0.178512	0.993591	0.307184	0.554242	-67.82%
SOUTH AMERICA	-2.127898	-0.436509	-12.578360	1.110347	13.688707	18.366887	4.285661	-201.40%
ASIA	-0.764773	-0.622314	-5.297897	2.806416	8.104313	2.253627	1.501209	-196.29%
CENTRAL ASIA	-1.472852	-1.480025	-3.485293	0.224361	3.709654	2.462734	1.569310	-106.55%
EASTERN ASIA	-0.085938	-0.384578	-2.983166	2.806416	5.789582	3.386336	1.840200	-2141.31%

SOUTH-EASTERN ASIA	-1.168381	-1.023327	-4.944689	1.743199	6.687888	2.603226	1.613451	-138.09%
SOUTHERN ASIA	-0.509419	-0.395471	-1.673208	0.117237	1.790445	0.317832	0.563766	-110.67%
WESTERN ASIA	-0.698916	-0.355529	-5.297897	0.946192	6.244089	2.448462	1.564756	-223.88%
EUROPE	-0.519174	-0.195762	-4.230818	1.661873	5.892691	2.003178	1.415337	-272.61%
BALKAN	-1.371527	-1.348461	-2.848809	1.151936	4.000745	1.898913	1.378010	-100.47%
CENTRAL EUROPE	0.037417	-0.041324	-0.594851	0.928806	1.523657	0.272812	0.522314	1395.94%
EASTERN EUROPE	-0.566811	0.197531	-4.230818	1.661873	5.892691	3.903562	1.975743	-348.57%
NORTHERN EUROPE	-1.814967	-1.961530	-3.596334	-0.031314	3.565020	1.772694	1.331426	-73.36%
SOUTHERN EUROPE	0.084705	0.165587	-0.913240	0.769518	1.682758	0.472602	0.687460	811.60%
WESTERN EUROPE	0.414638	0.698117	-1.075484	1.378843	2.454327	0.804467	0.896921	216.31%
OCEANIA	0.976842	0.570683	-6.037734	7.854692	13.892426	12.192432	3.491766	357.45%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	1.488260	18.949882	199	0.274943	-0.975223	-0.002270	0.723832	12.06%	20.10%	26.63%
AFRICA	2.738546	20.836642	54	0.646450	-0.304876	0.387075	0.815682	16.67%	22.22%	25.93%
EASTERN AFRICA	1.978464	5.733925	19	0.551723	-0.339669	0.234045	0.768363	15.79%	15.79%	15.79%
MIDDLE AFRICA	2.403278	6.665575	9	3.212929	-0.829841	0.802503	2.936019	0.00%	0.00%	0.00%
NORTHERN AFRICA	1.871208	3.641680	5	0.760581	-0.673276	-0.049908	1.897752	20.00%	20.00%	20.00%
SOUTHERN AFRICA	-0.361137	-1.127205	5	1.049719	-1.707225	0.815682	2.736937	20.00%	60.00%	60.00%
WESTERN AFRICA	-3.670100	14.313073	16	1.016079	0.032848	0.396418	0.752619	25.00%	31.25%	43.75%
AMERICA	-0.191293	4.996088	42	0.890308	-0.781097	0.045032	1.430524	16.67%	23.81%	30.95%
CARIBBEAN	-0.314808	3.651626	20	1.642905	-1.448392	0.181329	1.792687	25.00%	25.00%	35.00%
CENTRAL AMERICA	0.689763	0.644526	7	0.794129	-0.607741	2.022067	2.452049	0.00%	28.57%	28.57%
NORTH AMERICA	1.699953		3	0.319992	-1.172103	-1.100907	-0.178512	33.33%	33.33%	33.33%
SOUTH AMERICA	-1.828810	2.524511	12	1.237164	-4.524941	-0.436509	0.341766	8.33%	16.67%	25.00%
ASIA	-0.771931	1.862536	49	0.214458	-1.482342	-0.622314	0.170799	6.12%	14.29%	22.45%
CENTRAL ASIA	-0.201150	-1.969161	5	0.701817	-2.997270	-1.480025	0.055152	0.00%	0.00%	20.00%
EASTERN ASIA	0.053224	0.519334	7	0.695530	-1.115633	-0.384578	1.307286	14.29%	14.29%	14.29%

SOUTH-EASTERN ASIA	-0.811579	3.352825	11	0.486474	-1.703928	-1.023327	-0.450116	9.09%	18.18%	36.36%
SOUTHERN ASIA	-1.296307	2.089288	8	0.199321	-0.812574	-0.395471	-0.033087	0.00%	0.00%	0.00%
WESTERN ASIA	-1.543746	3.211757	18	0.368817	-1.356386	-0.355529	0.513413	5.56%	22.22%	27.78%
EUROPE	-0.850104	0.115876	41	0.221038	-1.112466	-0.195762	0.613376	9.76%	14.63%	24.39%
BALKAN	0.669189	0.045202	8	0.487200	-2.828997	-1.348461	-0.629623	0.00%	12.50%	37.50%
CENTRAL EUROPE	0.538561	-0.673382	8	0.184666	-0.425875	-0.041324	0.467080	0.00%	0.00%	0.00%
EASTERN EUROPE	-1.077770	0.312241	8	0.698531	-2.722180	0.197531	0.685737	25.00%	25.00%	25.00%
NORTHERN EUROPE	0.030327	0.139166	5	0.595432	-2.966272	-1.961530	-0.590381	20.00%	40.00%	60.00%
SOUTHERN EUROPE	-0.432489	-1.656390	6	0.280655	-0.394113	0.165587	0.714889	16.67%	16.67%	33.33%
WESTERN EUROPE	-0.996674	0.303429	6	0.366166	-0.195762	0.698117	0.983997	0.00%	0.00%	0.00%
OCEANIA	0.313269	1.413451	13	0.968442	-0.336574	0.570683	2.180414	7.69%	38.46%	38.46%

Attachment 5.2 – Box Plot of β



Attachment 5.3 - Descriptive Statistics for R-Squared

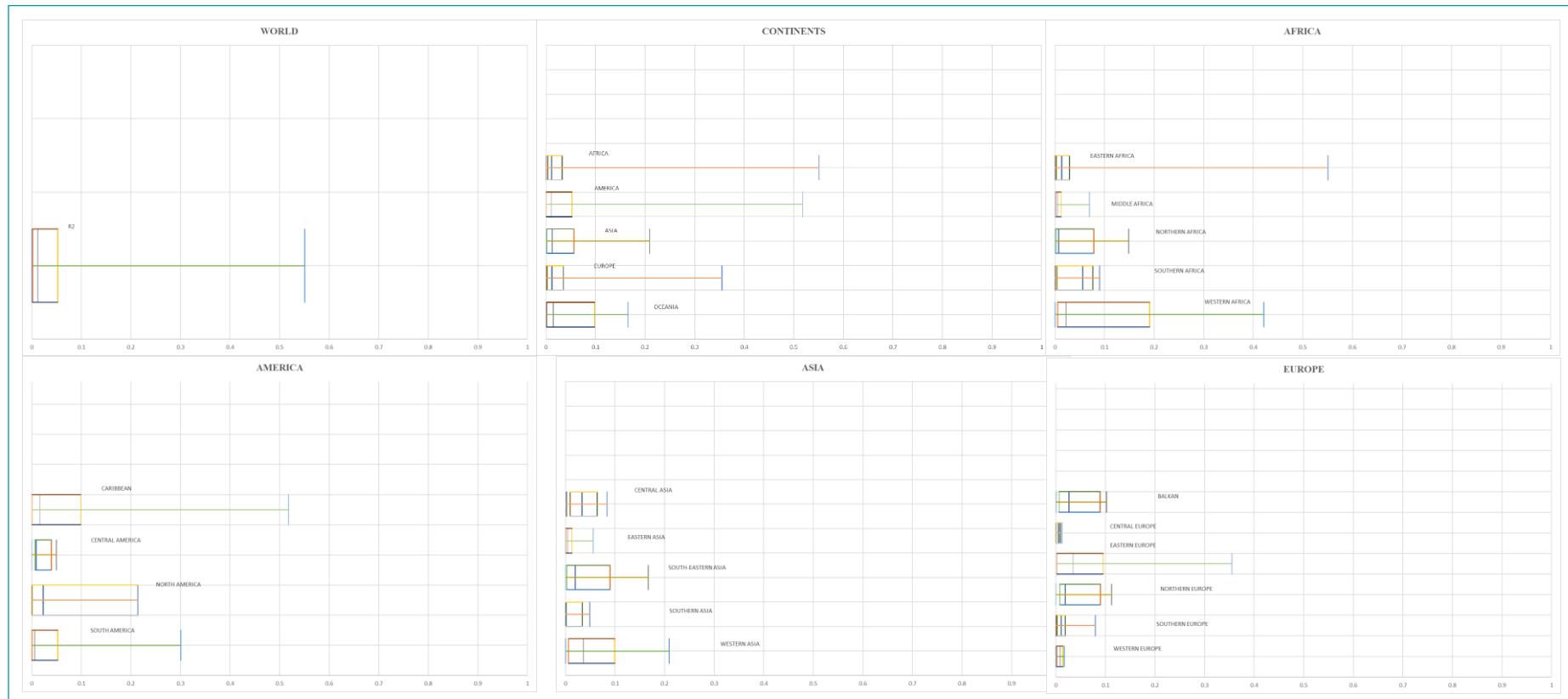
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.045854	0.011998	0.000000	0.550509	0.550509	0.006956	0.083400	181.88%
AFRICA	0.055086	0.011314	0.000002	0.550509	0.550507	0.011891	0.109045	197.95%
EASTERN AFRICA	0.052951	0.013633	0.000002	0.550509	0.550507	0.015961	0.126339	238.60%
MIDDLE AFRICA	0.013013	0.005660	0.000123	0.069238	0.069115	0.000467	0.021618	166.13%
NORTHERN AFRICA	0.033674	0.007125	0.000009	0.148530	0.148521	0.004133	0.064287	190.91%
SOUTHERN AFRICA	0.043209	0.055846	0.000738	0.090118	0.089380	0.001471	0.038349	88.75%
WESTERN AFRICA	0.091690	0.022056	0.000072	0.421536	0.421464	0.018420	0.135719	148.02%
AMERICA	0.053372	0.010517	0.000008	0.517804	0.517796	0.009956	0.099781	186.95%
CARIBBEAN	0.068599	0.015910	0.000008	0.517804	0.517796	0.014752	0.121457	177.05%
CENTRAL AMERICA	0.017625	0.009035	0.000200	0.049432	0.049232	0.000356	0.018874	107.08%
NORTH AMERICA	0.079040	0.022773	0.000343	0.214005	0.213662	0.013787	0.117420	148.56%
SOUTH AMERICA	0.042430	0.005869	0.000012	0.300682	0.300670	0.007383	0.085925	202.51%
ASIA	0.039061	0.012922	0.000000	0.209464	0.209464	0.002723	0.052179	133.59%
CENTRAL ASIA	0.036042	0.033499	0.002247	0.083726	0.081479	0.000968	0.031118	86.34%
EASTERN ASIA	0.012932	0.004935	0.000093	0.055661	0.055568	0.000380	0.019487	150.69%

SOUTH-EASTERN ASIA	0.047173	0.019324	0.000000	0.167174	0.167174	0.003346	0.057849	122.63%
SOUTHERN ASIA	0.011239	0.001269	0.000024	0.049216	0.049192	0.000367	0.019145	170.34%
WESTERN ASIA	0.057468	0.035830	0.000052	0.209464	0.209412	0.004157	0.064474	112.19%
EUROPE	0.032971	0.012308	0.000001	0.355144	0.355143	0.003685	0.060703	184.11%
BALKAN	0.042476	0.026428	0.000520	0.102308	0.101788	0.001648	0.040598	95.58%
CENTRAL EUROPE	0.004919	0.005392	0.000001	0.012029	0.012028	0.000019	0.004339	88.20%
EASTERN EUROPE	0.072919	0.034554	0.001802	0.355144	0.353342	0.013947	0.118095	161.96%
NORTHERN EUROPE	0.042995	0.019280	0.000011	0.112621	0.112610	0.002148	0.046348	107.80%
SOUTHERN EUROPE	0.020564	0.010675	0.000870	0.079785	0.078915	0.000887	0.029790	144.86%
WESTERN EUROPE	0.008492	0.008894	0.000153	0.016718	0.016565	0.000053	0.007279	85.72%
OCEANIA	0.049453	0.014566	0.000256	0.165710	0.165454	0.003707	0.060886	123.12%

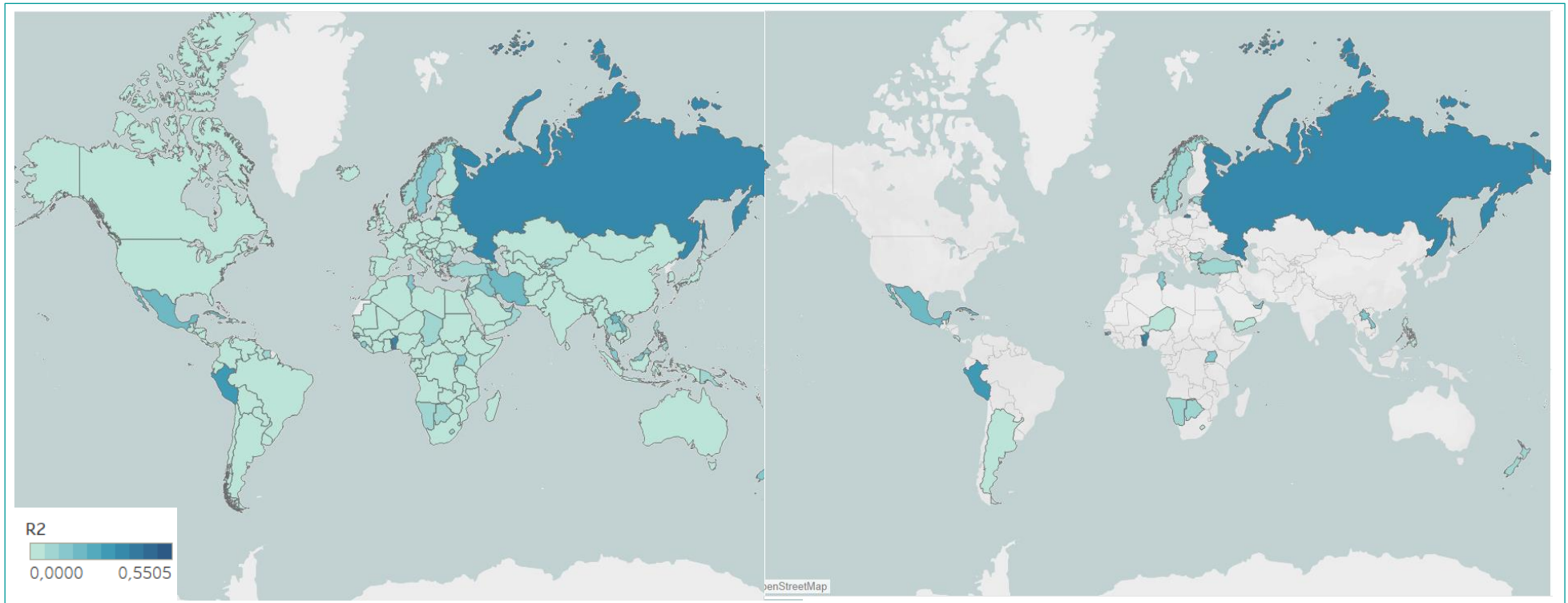
	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	3.432251	14.418362	199	0.005912	0.002069	0.011998	0.052382
AFRICA	3.062804	9.961580	54	0.014839	0.003633	0.011314	0.032686
EASTERN AFRICA	3.780230	15.137578	19	0.028984	0.002377	0.013633	0.028874
MIDDLE AFRICA	2.727050	7.771698	9	0.007206	0.002026	0.005660	0.012410
NORTHERN AFRICA	2.221962	4.950583	5	0.028750	0.002160	0.007125	0.078463
SOUTHERN AFRICA	-0.095281	-2.187651	5	0.017150	0.003684	0.055846	0.076416
WESTERN AFRICA	1.570280	1.453426	16	0.033930	0.005084	0.022056	0.191014
AMERICA	3.135094	11.516137	42	0.015397	0.000720	0.010517	0.052382
CARIBBEAN	2.973897	10.185386	20	0.027159	0.000427	0.015910	0.099005
CENTRAL AMERICA	1.186771	-0.325342	7	0.007134	0.006794	0.009035	0.039577
NORTH AMERICA	1.661218	#DIV/0!	3	0.067792	0.000343	0.022773	0.214005
SOUTH AMERICA	2.898502	8.895945	12	0.024804	0.000640	0.005869	0.052382
ASIA	1.626648	1.974213	49	0.007454	0.001774	0.012922	0.056463
CENTRAL ASIA	0.869257	0.832783	5	0.013917	0.009355	0.033499	0.064000
EASTERN ASIA	2.301106	5.574690	7	0.007365	0.001129	0.004935	0.012922

SOUTH-EASTERN ASIA	1.205784	0.337560	11	0.017442	0.002606	0.019324	0.089690
SOUTHERN ASIA	1.619074	1.229226	8	0.006769	0.000144	0.001269	0.033691
WESTERN ASIA	1.092519	0.146842	18	0.015197	0.006125	0.035830	0.099337
EUROPE	4.039091	20.055399	41	0.009480	0.002353	0.012308	0.035121
BALKAN	0.566570	-1.748147	8	0.014354	0.006389	0.026428	0.089342
CENTRAL EUROPE	0.303785	-0.924366	8	0.001534	0.000038	0.005392	0.008623
EASTERN EUROPE	2.476000	6.407272	8	0.041753	0.002069	0.034554	0.095473
NORTHERN EUROPE	0.999906	-0.379199	5	0.020728	0.007875	0.019280	0.089973
SOUTHERN EUROPE	2.175282	4.936128	6	0.012162	0.002636	0.010675	0.018745
WESTERN EUROPE	-0.029987	-2.834694	6	0.002972	0.002013	0.008894	0.014279
OCEANIA	0.961972	-0.619785	13	0.016887	0.001824	0.014566	0.098021

Attachment 5.4 – Box Plot of R-Squared



Attachment 5.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN	0.056823	0.262923	0.917870	0.018763	0.287000	50
ALBANIA	0.007121	-0.445153	0.115036	0.002941	0.728000	41
ALGERIA	0.021813	-0.087385	0.005961	0.000086	0.916300	71
ANGOLA	0.028428	1.654302	0.738159	0.010739	0.311400	70
ANGUILLA	-0.063690	0.217591	0.069285	0.001018	0.574000	70
ANTIGUA & BARBUDA	-0.142423	-0.939801	0.127716	0.001875	0.506000	70
ARGENTINA	0.007531	3.563751	7.618891	0.114365	0.009900	61
ARMENIA	0.035713	0.013836	0.245120	0.012108	0.611000	22
ARUBA	0.069352	-1.694527	1.987306	0.060245	0.252600	33
AUSTRALIA	0.001881	0.822881	0.656353	0.005440	0.456800	122
AUSTRIA	-0.009254	3.704064	5.932479	0.061202	0.072000	93
AZERBAIJAN	0.038690	0.245739	0.153168	0.002777	0.469100	57
BAHAMAS	-0.061673	-15.533490	4.126043	0.105455	0.247100	37
BAHRAIN	-0.051563	-0.065869	0.005061	0.000118	0.933500	45
BANGLADESH	0.003113	-0.062892	0.000791	0.000033	0.973500	26
BARBADOS	0.008479	0.521568	1.737937	0.027267	0.180300	64
BELARUS	0.016213	0.021422	0.003798	0.000079	0.867000	50
BELGIUM	-0.014203	5.640255	7.436721	0.072598	0.063600	97

BELIZE	0.006817	0.695233	5.639430	0.076582	0.023700	70
BENIN	0.011403	-0.012174	0.000220	0.000003	0.986800	84
BERMUDA	0.370478	-5.548166	1.155859	0.016959	0.231300	69
BHUTAN	0.103377	-0.951385	5.093754	0.070655	0.004500	69
BOLIVIA	0.022160	-0.987201	0.794645	0.011551	0.180800	70
BOSNIA & HERZEGOVINA	-0.012904	-0.158764	0.376962	0.013284	0.457100	30
BOTSWANA	-0.046237	0.172557	1.140147	0.027056	0.246700	43
BRAZIL	0.015963	1.009926	0.768398	0.008373	0.336100	93
BRUNEI	0.107241	0.817780	0.314819	0.004608	0.406900	70
BULGARIA	-0.003381	3.055795	6.144738	0.078633	0.096000	74
BURKINA FASO	-0.028284	0.574622	1.438854	0.017244	0.191200	84
BURUNDI	-0.002698	0.458009	0.416501	0.005751	0.328800	74
CAMBODIA	0.013504	0.099451	0.042412	0.000633	0.639900	69
CAMEROON	0.040798	-0.076203	0.075501	0.001126	0.609000	69
CANADA	-0.000414	2.277706	4.476021	0.035672	0.045700	123
CAPE VERDE	0.026067	-0.199647	0.422579	0.006087	0.306900	71
CAYMAN ISLANDS	0.065565	-1.160738	0.187727	0.009299	0.724900	22
CENTRAL AFRICAN REPUBLIC	0.014775	0.020513	0.011603	0.000173	0.513000	69
CHAD	0.181665	-0.417547	0.145459	0.002199	0.264200	68

CHILE	0.001613	1.249012	1.618114	0.024660	0.072600	66
CHINA	-0.101818	5.089192	4.725039	0.043063	0.009500	107
COLOMBIA	0.006825	1.245871	0.378295	0.006710	0.562000	58
COMOROS	-0.009091	0.405668	0.712604	0.010524	0.164500	69
COSTA RICA	0.129979	-5.039315	3.118449	0.043849	0.126800	70
CROATIA	0.002803	2.274213	5.557356	0.068986	0.142700	77
CUBA	0.006008	-0.715296	1.226018	0.029739	0.133000	42
CURACAO	-0.040125	2.732438	1.016742	0.021625	0.167000	48
CYPRUS	-0.031275	4.857854	2.211001	0.037341	0.086300	59
CZECH REPUBLIC	-0.020751	4.799288	13.061470	0.124322	0.000000	94
DEMOCRATIC REPUBLIC OF CONGO	-0.288631	13.079560	0.354645	0.004901	0.526500	74
DENMARK	0.022896	-0.293795	0.088196	0.000787	0.828600	114
DJIBOUTI	-0.029257	0.823969	2.193344	0.033135	0.033600	66
DOMINICA	0.003391	0.054799	0.068448	0.001006	0.725000	70
DOMINICAN REPUBLIC	0.055346	-0.251420	0.227454	0.004716	0.646400	50
EAST TIMOR	0.019869	0.125189	2.734021	0.040364	0.179000	67
ECUADOR	0.020643	-2.085365	1.423024	0.020498	0.126000	70
EGYPT	0.030566	-0.163370	0.981077	0.014019	0.244700	71
EL SALVADOR	0.023099	0.050184	0.052970	0.000962	0.856800	57

EQUATORIAL GUINEA	-0.227611	-0.921100	0.110543	0.001647	0.706400	69
ERITREA	-0.011766	-1.073072	0.207114	0.002322	0.592000	91
ESTONIA	0.008779	2.481019	9.654841	0.095920	0.007700	93
ETHIOPIA	-0.006858	0.177324	0.504577	0.005637	0.460900	91
FIJI	0.068198	-2.345726	5.535521	0.075277	0.087600	70
FINLAND	0.005628	4.341168	13.449750	0.103899	0.003400	118
FRANCE	-0.014039	6.431300	11.442360	0.086395	0.000100	123
GABON	0.009399	0.026940	0.006748	0.000102	0.868900	68
GAMBIA	-0.147343	2.784760	1.012997	0.016880	0.374600	61
GEORGIA	0.041913	0.222438	1.377142	0.033283	0.243400	42
GERMANY	0.016400	1.391978	1.122150	0.009920	0.300500	114
GHANA	0.013702	-0.937501	0.841459	0.035294	0.291500	25
GREECE	-0.000840	3.347876	9.052061	0.086996	0.000100	97
GRENADA	0.009730	-0.024926	0.051736	0.000760	0.702500	70
GUATEMALA	0.061018	-1.803055	17.848330	0.207905	0.005700	70
GUINEA	-0.009457	-0.174057	0.356498	0.004382	0.617400	83
GUINEA-BISSAU	0.021786	-0.379948	1.071124	0.012894	0.027500	84
GUYANA	1.491659	11.446900	0.033149	0.000480	0.428700	71
HAITI	0.136225	4.681057	2.351761	0.033911	0.173000	69

HONDURAS	-0.001623	1.285378	3.415215	0.047822	0.106200	70
HONG KONG	-0.012174	3.391353	17.291540	0.125037	0.000000	123
HUNGARY	0.019609	1.649316	0.945858	0.009757	0.476000	98
ICELAND	0.005122	0.415146	0.618568	0.006980	0.393400	90
INDIA	0.016662	0.943717	0.659398	0.007194	0.518400	93
INDONESIA	-0.139701	11.790800	2.011049	0.052907	0.108700	38
IRAN	0.072406	0.003325	0.000701	0.000015	0.944100	49
IRAQ	-0.019143	0.040994	0.340431	0.012452	0.444300	29
IRELAND	0.003545	0.760024	4.799292	0.048089	0.075800	97
ISRAEL	-0.014589	3.976418	11.296220	0.105281	0.001400	98
ITALY	-0.002230	3.602780	3.636957	0.041032	0.090000	87
IVORY COAST	0.015276	-0.420171	3.030977	0.035646	0.141100	84
JAMAICA	0.024588	0.246206	0.114694	0.001259	0.607600	93
JAPAN	0.000840	2.711078	6.121615	0.057685	0.011700	102
JORDAN	-0.016388	0.515576	4.778128	0.039561	0.038100	118
KAZAKHSTAN	-0.000728	1.467354	6.632766	0.121406	0.020500	50
KENYA	-0.032170	1.068693	0.790819	0.019874	0.324000	41
KIRIBATI	-0.000519	0.382362	21.516690	0.155336	0.025000	119
KOSOVO	0.023451	0.265220	6.697531	0.089662	0.028900	70

KUWAIT	-0.001294	0.036041	0.032105	0.000583	0.870900	57
KYRGYZSTAN	0.071408	0.267455	0.120110	0.001763	0.698700	70
LAOS	-0.470999	6.405563	11.242240	0.279364	0.000600	31
LATVIA	0.025031	-1.946259	0.902542	0.027431	0.175300	34
LEBANON	-0.000336	0.026267	0.005986	0.000064	0.943300	95
LESOTHO	0.002951	0.139501	0.058488	0.000859	0.803800	70
LIBERIA	0.017799	-0.597752	0.427820	0.009020	0.469700	49
LIBYA	0.016523	-0.008806	0.219380	0.003313	0.085500	68
LITHUANIA	0.003586	1.526489	2.593943	0.044270	0.002000	58
LUXEMBOURG	-0.019494	2.084403	4.158953	0.052539	0.089900	77
MACAU	0.020032	0.435890	0.895654	0.023635	0.266800	39
MADAGASCAR	0.474999	-9.262007	0.842689	0.015947	0.107800	54
MALAWI	0.041301	-0.356030	0.126537	0.003004	0.651400	44
MALAYSIA	-0.000128	0.511402	1.902556	0.033435	0.127600	57
MALDIVES	0.019115	-0.154583	1.226837	0.017982	0.308700	69
MALI	0.007968	0.001297	0.000055	0.000001	0.993200	84
MALTA	0.000107	0.225950	0.112656	0.001500	0.768400	77
MARSHALL ISLANDS	0.028647	-4.660803	0.794838	0.014775	0.262200	55
MAURITANIA	-0.002936	0.484439	1.602442	0.062589	0.126300	26

MAURITIUS	0.009098	0.264550	7.487695	0.086575	0.035500	81
MEXICO	-0.006890	4.116999	27.847860	0.211212	0.000000	106
MICRONESIA	-0.005335	0.114105	0.196870	0.005293	0.784400	39
MOLDOVA	0.035308	-0.108406	0.462614	0.013045	0.403400	37
MONGOLIA	0.148179	-1.588407	3.995163	0.056274	0.094700	69
MONTENEGRO	0.002735	-0.058916	1.620199	0.049669	0.107000	33
MONTSERRAT	0.027399	-0.154946	0.491481	0.007865	0.589000	64
MOROCCO	-0.022431	0.954966	4.852387	0.065704	0.064100	71
MOZAMBIQUE	-0.095653	1.940974	0.053732	0.001193	0.871300	47
MYANMAR	0.008582	1.195516	1.029591	0.014915	0.011900	70
NAMIBIA	0.018847	0.104465	0.338697	0.008193	0.532800	43
NEPAL	0.061552	-1.004334	1.839177	0.028365	0.088600	65
NETHERLANDS	0.005577	1.420724	2.480613	0.025189	0.307100	98
NEW ZEALAND	-0.015712	0.360964	0.348258	0.002870	0.703700	123
NICARAGUA	0.080608	0.363831	0.118849	0.001719	0.295200	71
NIGER	-0.013487	0.439477	3.405355	0.039873	0.046600	84
NIGERIA	0.006382	-0.062478	0.494370	0.007325	0.317800	69
NORTH MACEDONIA	0.049430	-0.352403	1.743545	0.030195	0.384000	58
NORWAY	0.017436	1.719613	4.146128	0.033130	0.011300	123

OMAN	0.012188	-0.010111	0.000758	0.000008	0.978300	92
PAKISTAN	-0.026881	1.469149	4.936561	0.040819	0.005200	118
PALAU	0.006287	0.607905	2.156584	0.049971	0.251900	43
PALESTINE	0.005816	-0.139156	0.418272	0.012516	0.414500	35
PANAMA	0.007285	0.471993	9.958083	0.083711	0.022900	111
PAPUA NEW GUINEA	-0.085788	-0.152154	0.003924	0.000059	0.951100	69
PARAGUAY	-0.040225	1.340697	0.516188	0.007425	0.485800	71
PERU	0.016162	0.575976	0.324407	0.003080	0.561700	107
PHILIPPINES	-0.020776	3.436885	5.650795	0.044617	0.011100	123
POLAND	-0.022135	1.678322	1.619451	0.016761	0.145700	97
PORTUGAL	-0.009955	3.967224	7.086264	0.068741	0.008700	98
PUERTO RICO	0.024988	2.892773	1.355271	0.011451	0.233600	119
QATAR	0.010032	-0.004452	0.000610	0.000011	0.980300	57
REPUBLIC OF CONGO	0.435322	-0.903521	0.228357	0.003397	0.569100	69
ROMANIA	0.031830	0.628978	0.282849	0.004333	0.693800	67
RUSSIAN FEDERATION	0.029774	0.534163	3.962486	0.040866	0.036500	95
RWANDA	-0.079789	0.757269	0.730728	0.029547	0.396200	26
SAINT KITTS AND NEVIS	0.018796	0.259710	1.329752	0.019180	0.258700	70
SAINT LUCIA	0.010449	0.143854	0.504412	0.007363	0.278300	70

SAINT VINCENT AND THE GRENADINES	-0.001510	0.411111	3.205215	0.045014	0.070600	70
SAMOA	-0.004393	0.610009	1.165830	0.016615	0.085800	71
SAO TOME AND PRINCIPE	0.008246	0.012051	0.001071	0.000016	0.969700	70
SAUDI ARABIA	-0.005248	0.614684	6.767113	0.135976	0.016000	45
SENEGAL	0.017075	-0.204760	0.192388	0.002341	0.696800	84
SERBIA	-0.006364	1.837464	0.537580	0.011076	0.513600	50
SEYCHELLES	0.035172	-0.682825	1.799893	0.034089	0.372500	53
SIERRA LEONE	-0.343735	-0.437807	0.092497	0.001339	0.525000	71
SINGAPORE	-0.016669	1.910443	11.349310	0.085753	0.007100	123
SLOVAKIA	-0.001750	0.456594	0.343718	0.003605	0.437700	97
SLOVENIA	-0.015741	3.544787	9.116139	0.149161	0.008100	54
SOLOMON ISLANDS	-0.406224	1.034970	0.060818	0.000881	0.643100	71
SOMALIA	-0.022417	1.027359	0.156419	0.001774	0.641000	90
SOUTH AFRICA	-0.006027	3.386397	3.460297	0.033125	0.007200	103
SOUTH KOREA	-0.044120	5.770579	14.303090	0.158390	0.000300	78
SOUTH SUDAN	0.721856	-9.325869	0.114017	0.003786	0.696700	32
SPAIN	-0.008635	4.032397	4.901898	0.048581	0.001700	98
SRI LANKA	0.032410	0.311527	2.544515	0.020764	0.152300	122
SUDAN	0.026978	1.546568	0.195152	0.006463	0.447900	32

SURINAME	-0.056629	-1.123123	0.115490	0.001696	0.794600	70
SWAZILAND	0.132454	-8.765548	1.991124	0.028048	0.259900	71
SWEDEN	-9.938302	1.956685	1.672798	0.013636	0.302400	123
SWITZERLAND	0.000613	3.850679	9.187420	0.070571	0.001600	123
SYRIA	0.059805	-0.404392	0.201979	0.005287	0.413500	40
TAIWAN	-0.006986	1.742203	3.138947	0.025286	0.060200	123
TAJIKISTAN	0.308704	-0.978408	1.744254	0.025009	0.231100	70
TANZANIA	0.018065	0.402045	0.067883	0.001936	0.733300	37
THAILAND	-0.011131	2.069621	10.086610	0.088412	0.000400	106
TOGO	0.022311	-0.286850	0.387064	0.004698	0.426300	84
TONGA	0.054650	-0.577845	0.684545	0.009823	0.291800	71
TRINIDAD & TOBAGO	0.002643	-0.301034	1.083098	0.025737	0.264800	43
TUNISIA	-0.011290	0.787031	7.497356	0.081055	0.002400	87
TURKEY	0.055504	-0.993041	0.682770	0.008159	0.470900	85
TURKMENISTAN	0.094092	-0.222145	0.449984	0.005886	0.656100	78
TUVALU	0.001578	-0.065837	6.289474	0.079323	0.144700	75
UGANDA	-0.033534	0.946549	2.129135	0.034830	0.045500	61
UKRAINE	-0.005941	-0.274903	0.029206	0.000834	0.846000	37
UNITED ARAB EMIRATES	-0.013285	0.444714	0.671680	0.012065	0.622300	57

UNITED KINGDOM	-0.003559	2.432122	4.311256	0.034404	0.086900	123
UNITED STATES OF AMERICA	-0.016052	4.567324	22.567100	0.157189	0.003700	123
URUGUAY	-0.171737	-7.824162	9.460358	0.146762	0.068600	57
UZBEKISTAN	0.001421	-0.013706	6.636743	0.376302	0.012600	13
VANUATU	-0.003876	0.706823	2.538187	0.035983	0.027300	70
VENEZUELA	0.017758	-0.157490	0.510547	0.010524	0.430200	50
VIETNAM	0.012458	-0.352547	0.366677	0.007428	0.133800	51
YEMEN	-0.076524	-0.381310	3.390551	0.070066	0.009900	47
ZAMBIA	-0.000298	0.689176	1.802936	0.020077	0.236600	90
ZIMBABWE	0.031772	0.261617	0.140787	0.004248	0.628900	35

Attachment 6.1 - Descriptive Statistics for β

	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.632597	0.265220	-15.533490	13.079560	28.613050	8.228235	2.868490	453.45%
AFRICA	-0.006737	0.023727	-9.325869	13.079560	22.405429	8.721340	2.953191	-43837.58%
EASTERN AFRICA	-0.522633	0.405668	-9.325869	1.940974	11.266843	10.055406	3.171026	-606.74%
MIDDLE AFRICA	1.386111	0.012051	-0.921100	13.079560	14.000660	19.795763	4.449243	320.99%
NORTHERN AFRICA	0.296487	-0.008806	-0.163370	0.954966	1.118336	0.281564	0.530627	178.97%
SOUTHERN AFRICA	-0.992526	0.139501	-8.765548	3.386397	12.151945	20.859283	4.567196	-460.16%
WESTERN AFRICA	0.035716	-0.186852	-0.937501	2.784760	3.722261	0.695980	0.834254	2335.82%
AMERICA	0.025663	0.231899	-15.533490	11.446900	26.980390	14.833657	3.851449	15007.97%
CARIBBEAN	-0.708162	0.014937	-15.533490	4.681057	20.214547	16.116867	4.014582	-566.90%
CENTRAL AMERICA	-0.567964	0.363831	-5.039315	1.285378	6.324693	4.813472	2.193963	-386.29%
NORTH AMERICA	3.654010	4.116999	2.277706	4.567324	2.289618	1.471357	1.212995	33.20%
SOUTH AMERICA	0.687899	0.792951	-7.824162	11.446900	19.271062	19.285618	4.391539	638.40%
ASIA	1.041599	0.245739	-1.588407	11.790800	13.379207	5.404597	2.324779	223.19%
CENTRAL ASIA	0.104110	-0.013706	-0.978408	1.467354	2.445762	0.794321	0.891247	856.06%
EASTERN ASIA	2.507413	2.711078	-1.588407	5.770579	7.358986	6.631527	2.575175	102.70%

SOUTH-EASTERN ASIA	2.546373	1.195516	-0.352547	11.790800	12.143347	13.098474	3.619181	142.13%
SOUTHERN ASIA	0.101765	0.100016	-1.004334	1.469149	2.473483	0.724857	0.851385	836.62%
WESTERN ASIA	0.230095	0.020052	-0.993041	3.976418	4.969459	1.007822	1.003903	436.30%
EUROPE	1.885286	1.678322	-1.946259	6.431300	8.377559	3.730262	1.931389	102.45%
BALKAN	0.802182	0.103152	-0.445153	3.055795	3.500948	1.879943	1.371110	170.92%
CENTRAL EUROPE	2.634379	2.611555	0.456594	4.799288	4.342694	2.329998	1.526433	57.94%
EASTERN EUROPE	0.357813	0.277793	-1.946259	2.481019	4.427278	1.716862	1.310291	366.19%
NORTHERN EUROPE	1.627763	1.719613	-0.293795	4.341168	4.634963	3.160504	1.777781	109.22%
SOUTHERN EUROPE	3.339014	3.785002	0.225950	4.857854	4.631904	2.588624	1.608920	48.19%
WESTERN EUROPE	3.128138	2.258263	0.760024	6.431300	5.671276	5.463732	2.337463	74.72%
OCEANIA	-0.243257	0.360964	-4.660803	1.034970	5.695773	2.508059	1.583685	-651.03%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	-0.486395	9.574396	199	0.203342	-0.163370	0.265220	1.467354	13.07%	23.12%	32.16%
AFRICA	0.034823	10.802463	54	0.401878	-0.356030	0.023727	0.689176	3.70%	12.96%	16.67%
EASTERN AFRICA	-2.541173	5.578586	19	0.727483	-0.356030	0.405668	0.946549	0.00%	15.79%	15.79%
MIDDLE AFRICA	2.842936	8.264190	9	1.483081	-0.660534	0.012051	0.840621	0.00%	0.00%	0.00%
NORTHERN AFRICA	0.617133	-2.938281	5	0.237303	-0.125378	-0.008806	0.870999	20.00%	20.00%	60.00%
SOUTHERN AFRICA	-1.667775	3.557930	5	2.042512	-4.330542	0.139501	1.779477	20.00%	20.00%	20.00%
WESTERN AFRICA	2.567788	8.316678	16	0.208564	-0.420171	-0.186852	0.439477	0.00%	12.50%	12.50%
AMERICA	-1.218380	7.364231	42	0.594291	-0.939801	0.231899	1.249012	9.52%	16.67%	23.81%
CARIBBEAN	-2.821209	10.370870	20	0.897688	-0.939801	0.014937	0.411111	0.00%	0.00%	5.00%
CENTRAL AMERICA	-1.783667	3.028377	7	0.829240	-1.803055	0.363831	0.695233	14.29%	42.86%	42.86%
NORTH AMERICA	-1.467374		3	0.700323	2.277706	4.116999	4.567324	66.67%	100.00%	100.00%
SOUTH AMERICA	0.799308	3.930000	12	1.267728	-1.123123	0.792951	1.340697	8.33%	8.33%	25.00%
ASIA	2.672043	9.123810	49	0.332111	-0.064381	0.245739	1.468252	20.41%	34.69%	40.82%
CENTRAL ASIA	0.725672	1.587260	5	0.398578	-0.600277	-0.013706	0.867405	0.00%	40.00%	40.00%
EASTERN ASIA	-0.346947	-0.533424	7	0.973325	0.435890	2.711078	5.089192	42.86%	57.14%	85.71%

SOUTH-EASTERN ASIA	2.007340	4.057221	11	1.091224	0.125189	1.195516	3.436885	27.27%	45.45%	45.45%
SOUTHERN ASIA	0.192676	-0.506369	8	0.301010	-0.951385	0.100016	0.943717	25.00%	25.00%	37.50%
WESTERN ASIA	3.284001	12.859330	18	0.236622	-0.065869	0.020052	0.245739	11.11%	22.22%	22.22%
EUROPE	0.394521	-0.511989	41	0.301632	0.245585	1.678322	3.573784	24.39%	31.71%	51.22%
BALKAN	0.782153	-1.279390	8	0.484761	-0.352403	0.103152	2.274213	0.00%	12.50%	25.00%
CENTRAL EUROPE	-0.008121	-1.565176	8	0.539676	1.391978	2.611555	3.850679	37.50%	50.00%	50.00%
EASTERN EUROPE	-0.121199	0.985282	8	0.463258	-0.274903	0.277793	1.526489	25.00%	37.50%	37.50%
NORTHERN EUROPE	0.825798	0.761704	5	0.795048	0.060676	1.719613	3.148927	20.00%	40.00%	40.00%
SOUTHERN EUROPE	-1.877538	4.157807	6	0.656839	3.347876	3.785002	4.032397	50.00%	50.00%	83.33%
WESTERN EUROPE	0.755484	-1.554578	6	0.954265	1.420724	2.258263	5.640255	16.67%	16.67%	83.33%
OCEANIA	-2.222247	4.983069	13	0.439235	-0.365000	0.360964	0.658416	0.00%	15.38%	30.77%

Attachment 6.2 – Box Plot of β



Attachment 6.3 - Descriptive Statistics for R-Squared

	Mean	Median	Mode	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.035546	0.016761	0.010524	0.000001	0.376302	0.376301	0.002533	0.050329	141.59%
AFRICA	0.015965	0.006275		0.000001	0.086575	0.086574	0.000421	0.020528	128.58%
EASTERN AFRICA	0.016880	0.006463		0.001193	0.086575	0.085382	0.000431	0.020754	122.95%
MIDDLE AFRICA	0.002700	0.001647		0.000016	0.010739	0.010723	0.000012	0.003430	127.05%
NORTHERN AFRICA	0.032835	0.014019		0.000086	0.081055	0.080969	0.001426	0.037761	115.00%
SOUTHERN AFRICA	0.019456	0.027056		0.000859	0.033125	0.032266	0.000198	0.014063	72.28%
WESTERN AFRICA	0.015976	0.008173		0.000001	0.062589	0.062588	0.000327	0.018090	113.24%
AMERICA	0.039393	0.018070		0.000480	0.211212	0.210732	0.003012	0.054884	139.33%
CARIBBEAN	0.021587	0.014205		0.000760	0.105455	0.104695	0.000652	0.025529	118.26%
CENTRAL AMERICA	0.066079	0.047822		0.000962	0.207905	0.206943	0.004958	0.070410	106.56%
NORTH AMERICA	0.134691	0.157189		0.035672	0.211212	0.175540	0.008083	0.089907	66.75%
SOUTH AMERICA	0.029677	0.009449		0.000480	0.146762	0.146282	0.002319	0.048152	162.25%
ASIA	0.047491	0.023635		0.000008	0.376302	0.376294	0.005089	0.071340	150.22%
CENTRAL ASIA	0.106073	0.025009		0.001763	0.376302	0.374539	0.025187	0.158704	149.62%
EASTERN ASIA	0.069910	0.056274		0.023635	0.158390	0.134755	0.002676	0.051731	74.00%

SOUTH-EASTERN ASIA	0.059312	0.040364		0.000633	0.279364	0.278731	0.006235	0.078964	133.13%
SOUTHERN ASIA	0.025572	0.019764		0.000033	0.070655	0.070622	0.000484	0.022006	86.06%
WESTERN ASIA	0.025018	0.010112		0.000008	0.135976	0.135968	0.001564	0.039553	158.10%
EUROPE	0.043375	0.037341		0.000079	0.149161	0.149082	0.001393	0.037320	86.04%
BALKAN	0.043056	0.039932		0.002941	0.089662	0.086721	0.001120	0.033461	77.72%
CENTRAL EUROPE	0.055662	0.038982		0.003605	0.149161	0.145556	0.003162	0.056229	101.02%
EASTERN EUROPE	0.028347	0.020238		0.000079	0.095920	0.095841	0.001049	0.032391	114.26%
NORTHERN EUROPE	0.031686	0.013636		0.000787	0.103899	0.103112	0.001777	0.042154	133.03%
SOUTHERN EUROPE	0.047365	0.044807		0.001500	0.086996	0.085496	0.000855	0.029234	61.72%
WESTERN EUROPE	0.053202	0.050314		0.025189	0.086395	0.061206	0.000529	0.022990	43.21%
OCEANIA	0.034742	0.014775		0.000059	0.155336	0.155277	0.002071	0.045503	130.97%

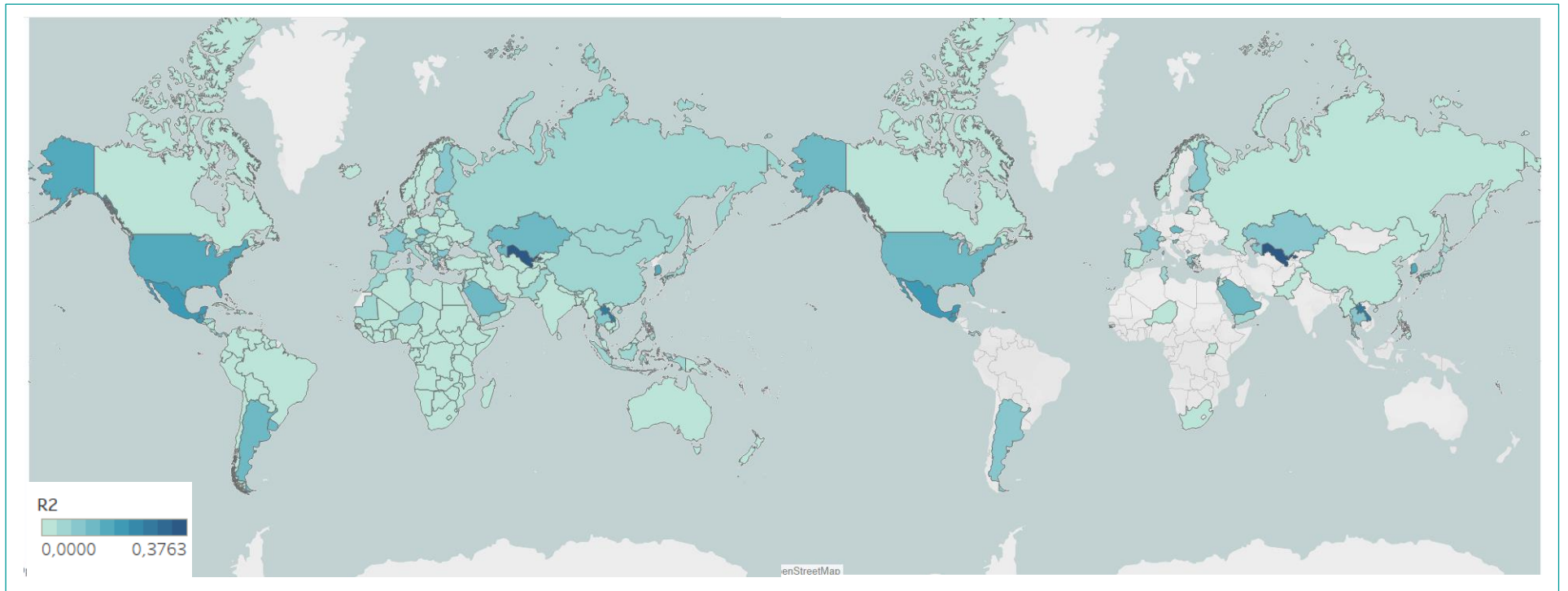
	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	3.052912	13.506734	199	0.003568	0.004248	0.016761	0.045014
AFRICA	1.893931	3.459380	54	0.002794	0.002199	0.006275	0.027056
EASTERN AFRICA	2.298988	6.562333	19	0.004761	0.003004	0.006463	0.029547
MIDDLE AFRICA	1.880717	3.836301	9	0.001143	0.000138	0.001647	0.004149
NORTHERN AFRICA	0.619915	-2.707461	5	0.016887	0.001700	0.014019	0.073380
SOUTHERN AFRICA	-0.634218	-2.267219	5	0.006289	0.004526	0.027056	0.030587
WESTERN AFRICA	1.427866	1.499339	16	0.004523	0.002341	0.008173	0.035294
AMERICA	1.967239	3.273920	42	0.008469	0.004716	0.018070	0.045014
CARIBBEAN	2.134839	5.490607	20	0.005709	0.001875	0.014205	0.029739
CENTRAL AMERICA	1.537212	2.958203	7	0.026613	0.001719	0.047822	0.083711
NORTH AMERICA	-1.055556		3	0.051908	0.035672	0.157189	0.211212
SOUTH AMERICA	2.052099	3.065414	12	0.013900	0.003080	0.009449	0.024660
ASIA	2.961768	10.429977	49	0.010191	0.005587	0.023635	0.056980
CENTRAL ASIA	1.778641	3.024068	5	0.070975	0.003825	0.025009	0.248854
EASTERN ASIA	1.093124	-0.209621	7	0.019552	0.025286	0.056274	0.125037

SOUTH-EASTERN ASIA	2.501734	7.049208	11	0.023809	0.007428	0.040364	0.085753
SOUTHERN ASIA	1.277433	2.016240	8	0.007780	0.007194	0.019764	0.040819
WESTERN ASIA	1.982725	3.241625	18	0.009323	0.000118	0.010112	0.033283
EUROPE	0.860808	0.262578	41	0.005828	0.010498	0.037341	0.069779
BALKAN	0.194299	-1.830726	8	0.011830	0.011076	0.039932	0.078633
CENTRAL EUROPE	0.805838	-0.882058	8	0.019880	0.009757	0.038982	0.124322
EASTERN EUROPE	1.421966	2.119841	8	0.011452	0.000834	0.020238	0.044270
NORTHERN EUROPE	1.813997	3.315536	5	0.018852	0.003884	0.013636	0.068515
SOUTHERN EUROPE	-0.308954	0.566311	6	0.011935	0.037341	0.044807	0.068741
WESTERN EUROPE	0.372971	-0.995793	6	0.009386	0.034404	0.050314	0.072598
OCEANIA	1.797444	3.281251	13	0.012620	0.004082	0.014775	0.062624

Attachment 6.4 – Box Plot of R-Squared



Attachment 6.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN	0.109969	-0.985635	1.498643	0.036113	0.114300	42
ALBANIA	0.425929	1.161730	0.054678	0.000792	0.578100	71
ALGERIA	0.015311	0.168659	0.097833	0.001655	0.772400	61
ANGOLA	-0.291520	-7.755649	7.918314	0.180296	0.131500	38
ANGUILLA	-0.119250	-0.085359	0.017595	0.000298	0.664300	61
ANTIGUA & BARBUDA	-0.174939	-1.562262	0.307049	0.005177	0.332200	61
ARGENTINA	0.034168	0.306542	3.559306	0.029770	0.006600	118
ARMENIA	0.049541	0.027347	0.013593	0.000209	0.913300	67
ARUBA	0.097629	-0.687226	1.150049	0.035771	0.502000	33
AUSTRALIA	0.012844	-0.232186	1.213289	0.009928	0.231800	123
AUSTRIA	-0.002487	0.459032	0.666817	0.007694	0.321900	88
AZERBAIJAN	0.042774	-0.077153	0.055351	0.001176	0.877200	49
BAHAMAS	-0.227191	-1.370359	0.065229	0.002410	0.584000	29
BAHRAIN	-0.044343	0.386292	1.672876	0.029518	0.208900	57
BANGLADESH	0.011910	-0.670283	2.277447	0.086669	0.026700	26
BARBADOS	0.028190	0.155775	0.520769	0.016521	0.292000	33
BELARUS	0.014157	0.301397	1.584233	0.031319	0.169700	51
BELGIUM	-0.002021	0.360580	2.037711	0.029094	0.228000	70
BELIZE	0.021659	0.130997	0.699841	0.012343	0.249700	58

BENIN	0.007400	0.736254	54.757610	0.522708	0.000000	52
BERMUDA						
BHUTAN	0.029266	0.221270	1.410842	0.023354	0.461500	61
BOLIVIA	0.009564	0.052376	0.376036	0.005500	0.381700	70
BOSNIA & HERZEGOVINA	-0.009311	-0.438990	1.680997	0.045827	0.193300	37
BOTSWANA	-0.031853	-0.081118	0.244973	0.006087	0.591600	42
BRAZIL	0.015253	0.210828	2.692465	0.037556	0.089300	71
BRUNEI	0.005245	0.053883	0.096878	0.008730	0.636200	13
BULGARIA	0.009778	0.691978	3.630909	0.047382	0.282600	75
BURKINA FASO	0.019336	0.093636	0.208226	0.004147	0.630100	52
BURUNDI	0.013682	0.612488	1.923056	0.026014	0.114400	74
CAMBODIA	-0.002750	0.338902	1.456294	0.024494	0.255400	60
CAMEROON	0.042425	-0.179058	0.055773	0.000944	0.781300	61
CANADA	0.014126	-0.155221	0.097024	0.000801	0.793100	123
CAPE VERDE	0.009583	0.614028	5.628850	0.087095	0.034800	61
CAYMAN ISLANDS	0.030549	1.476299	0.519723	0.028063	0.508100	20
CENTRAL AFRICAN REPUBLIC	0.019664	0.119568	0.064390	0.001090	0.641700	61
CHAD	0.263641	-0.099058	0.157238	0.003561	0.147900	46
CHILE	0.005692	0.598308	12.369050	0.092743	0.004300	123
CHINA	-0.011701	0.617384	2.791398	0.025896	0.145100	107

COLOMBIA	0.016857	0.169839	3.206694	0.029635	0.111900	107
COMOROS	-0.000017	0.107370	1.821025	0.026460	0.170300	69
COSTA RICA	-0.056465	-0.948428	0.843015	0.012245	0.260700	70
CROATIA	-0.007305	0.221559	0.804333	0.023794	0.221700	35
CUBA						
CURACAO						
CYPRUS	0.089867	-0.122286	0.293098	0.022049	0.117800	15
CZECH REPUBLIC	0.000434	0.643619	1.447755	0.020847	0.053100	70
DEMOCRATIC REPUBLIC OF CONGO	-0.353349	-10.848240	2.547381	0.095956	0.208700	26
DENMARK	0.015947	0.470401	1.718964	0.015116	0.124400	114
DJIBOUTI	-0.001883	0.415996	3.231793	0.091729	0.125300	34
DOMINICA	0.004509	0.039428	0.086551	0.001465	0.788200	61
DOMINICAN REPUBLIC	0.126108	-6.184331	9.469302	0.120675	0.192300	71
EAST TIMOR						
ECUADOR	0.041807	-1.561684	10.054490	0.176226	0.000500	49
EGYPT	0.016723	0.350341	0.410651	0.004444	0.627600	94
EL SALVADOR	0.031220	0.295012	1.256210	0.029728	0.288400	43
EQUATORIAL GUINEA	0.125995	-0.525671	0.026760	0.001484	0.924000	20
ERITREA	-0.011998	0.297946	1.193062	0.017495	0.253600	69
ESTONIA	0.001067	1.105660	8.178214	0.085032	0.028200	90

ETHIOPIA	0.024695	0.486738	1.234783	0.029236	0.148400	43
FIJI	0.058500	-0.558237	1.266781	0.034930	0.000300	37
FINLAND	0.021683	-0.039063	0.006269	0.000052	0.925400	123
FRANCE	0.015148	-0.229099	1.193925	0.009771	0.170700	123
GABON	0.011583	-0.224370	0.572185	0.008595	0.475000	68
GAMBIA	0.076327	-3.826364	3.423131	0.062898	0.147300	53
GEORGIA	0.042210	-0.051251	0.025456	0.000621	0.885900	43
GERMANY	0.019540	0.070276	0.090792	0.000750	0.743900	123
GHANA	0.006697	-0.133379	0.294446	0.009118	0.407600	34
GREECE	0.014927	-0.007090	0.003579	0.000030	0.935700	123
GRENADA	0.010115	-0.227118	4.651538	0.073078	0.009100	61
GUATEMALA	0.034668	-1.069004	4.395985	0.059894	0.027600	71
GUINEA	-0.015916	-0.075284	0.591253	0.008620	0.120700	70
GUINEA-BISSAU	0.014941	0.137267	1.750005	0.033817	0.209600	52
GUYANA	2.498390	-14.872090	0.290558	0.004819	0.353500	62
HAITI	0.208778	0.717920	0.111615	0.001888	0.799200	61
HONDURAS	0.043169	0.460128	2.421433	0.034385	0.332700	70
HONG KONG	-0.000729	0.848285	18.068220	0.129923	0.000100	123
HUNGARY	0.029736	-0.089392	0.111590	0.001052	0.802100	108
ICELAND	-0.000387	0.367369	2.250559	0.035028	0.297400	64

INDIA	0.028217	0.356337	1.486668	0.013100	0.327800	114
INDONESIA	0.020731	0.521536	3.295637	0.026515	0.081200	123
IRAN	0.022262	1.161482	59.511910	0.580537	0.000000	45
IRAQ	-0.017548	-0.031947	0.010756	0.000430	0.885000	27
IRELAND	0.002067	0.041712	0.143152	0.001786	0.575100	82
ISRAEL	0.017894	0.354995	2.144654	0.017416	0.083600	123
ITALY	-0.011651	1.115039	8.046899	0.086482	0.000400	87
IVORY COAST	0.007495	0.272744	2.689491	0.051044	0.230900	52
JAMAICA	0.019459	0.255764	3.121845	0.038483	0.109100	80
JAPAN	-0.005863	0.653062	2.262968	0.018359	0.056600	123
JORDAN	-0.000669	0.448074	3.402463	0.032905	0.174500	102
KAZAKHSTAN	0.006429	0.290471	0.846752	0.017335	0.193000	50
KENYA	-0.017335	0.340797	1.752360	0.018494	0.248800	95
KIRIBATI						
KOSOVO	0.050514	0.316495	0.344383	0.036855	0.586600	11
KUWAIT	-0.009199	0.711715	5.469260	0.090447	0.001100	57
KYRGYZSTAN	0.141472	-1.640902	15.658800	0.249906	0.002500	49
LAOS						
LATVIA	0.038148	-1.315902	8.993041	0.219380	0.003500	34
LEBANON	0.003711	-0.114466	0.148519	0.001612	0.540700	94

LESOTHO	0.010485	0.289745	3.318647	0.049298	0.011600	66
LIBERIA	-0.012772	0.319505	0.310643	0.008109	0.262100	40
LIBYA	-0.011960	1.125314	10.013190	0.143019	0.003700	62
LITHUANIA	0.020155	0.268074	1.094619	0.014017	0.536800	79
LUXEMBOURG	-0.012472	0.599644	8.807574	0.099176	0.003100	82
MACAU	0.027337	-0.131495	0.051653	0.001394	0.855900	39
MADAGASCAR	0.188513	-4.117254	0.409453	0.008458	0.109200	50
MALAWI	0.014683	0.328820	3.472851	0.076372	0.000200	44
MALAYSIA	-0.016388	1.489263	26.726560	0.180919	0.003200	123
MALDIVES						
MALI	0.032983	-0.305016	2.643113	0.050208	0.216200	52
MALTA	-0.019672	0.638326	7.938262	0.152840	0.082400	46
MARSHALL ISLANDS						
MAURITANIA						
MAURITIUS	-0.003765	0.752242	9.825505	0.182544	0.002600	46
MEXICO	0.022735	-0.156348	0.980697	0.013256	0.328200	75
MICRONESIA						
MOLDOVA	0.079849	0.510444	1.149710	0.014712	0.292500	79
MONGOLIA	-0.053142	0.790238	0.390015	0.007740	0.627300	52
MONTENEGRO	0.071403	1.546213	3.644871	0.168394	0.122500	20

MONTSERRAT	0.020855	0.097038	0.741419	0.012410	0.316200	61
MOROCCO	-0.004075	1.136407	5.951241	0.080475	0.024300	70
MOZAMBIQUE	-0.198174	2.554975	2.319481	0.037219	0.285500	62
MYANMAR	0.068446	-0.648553	1.273208	0.057163	0.242900	23
NAMIBIA	0.022069	0.077994	0.921934	0.014201	0.454400	66
NEPAL	0.029421	0.030483	0.005991	0.000113	0.932100	55
NETHERLANDS	0.015041	0.058120	0.069355	0.000573	0.695500	123
NEW ZEALAND	-0.011889	0.849807	12.467490	0.095560	0.001200	120
NICARAGUA	0.053830	2.021310	5.744002	0.077891	0.107900	70
NIGER	0.016157	0.244791	0.967494	0.018983	0.227700	52
NIGERIA	0.000311	0.075054	0.117236	0.001747	0.649700	69
NORTH MACEDONIA	0.022033	0.104477	0.071333	0.001780	0.654500	42
NORWAY	0.011760	0.023854	0.043455	0.000987	0.576300	46
OMAN	0.006317	0.014754	0.007009	0.000088	0.914400	82
PAKISTAN	-0.010126	1.386182	6.794915	0.136458	0.013100	45
PALAU						
PALESTINE						
PANAMA						
PAPUA NEW GUINEA						
PARAGUAY	-0.084828	4.478743	6.204791	0.082505	0.080100	71

PERU	0.020088	0.103220	0.289048	0.002745	0.549100	107
PHILIPPINES	0.025727	-0.365624	4.208830	0.033614	0.048400	123
POLAND	-0.024616	0.709758	2.789791	0.030728	0.064000	90
PORTUGAL	-0.002373	-0.084588	0.058169	0.000676	0.768800	88
PUERTO RICO						
QATAR	0.005369	0.395666	3.686145	0.071318	0.055900	50
REPUBLIC OF CONGO	0.295240	3.754826	0.714523	0.025782	0.353400	29
ROMANIA	0.024189	-0.092474	0.072144	0.001359	0.785100	55
RUSSIAN FEDERATION	0.012167	0.595918	3.420979	0.044765	0.117200	75
RWANDA	-0.030385	0.232257	0.465894	0.019854	0.480400	25
SAINT KITTS AND NEVIS	0.025440	0.086864	0.404961	0.006817	0.439700	61
SAINT LUCIA	0.001102	0.283730	1.841570	0.030268	0.297500	61
SAINT VINCENT AND THE GRENADINES	0.007882	0.108484	0.393714	0.006629	0.545200	61
SAMOA	-0.004425	0.508874	2.689434	0.043596	0.005200	61
SAO TOME AND PRINCIPE	0.008381	0.016278	0.043764	0.000643	0.826600	70
SAUDI ARABIA	0.015435	0.434884	0.887282	0.010835	0.256400	83
SENEGAL	0.033011	-0.306080	0.596744	0.011794	0.385000	52
SERBIA	-0.011260	0.419721	1.293120	0.026233	0.291800	50
SEYCHELLES	0.067749	-0.478235	0.461112	0.007627	0.632800	62
SIERRA LEONE	-0.318953	-1.844183	0.541825	0.007791	0.383900	71

SINGAPORE	-0.014203	1.298154	20.094020	0.142416	0.001200	123
SLOVAKIA	-0.008242	0.189815	0.626785	0.011910	0.435500	54
SLOVENIA	-0.015401	0.891123	3.208155	0.058110	0.308500	54
SOLOMON ISLANDS	-0.314482	-0.405534	0.015162	0.000257	0.772000	61
SOMALIA						
SOUTH AFRICA	0.005914	0.587669	3.851968	0.036737	0.108800	103
SOUTH KOREA	-0.001761	0.677651	3.953007	0.032955	0.077800	118
SOUTH SUDAN	0.736441	-2.601066	0.104734	0.004963	0.771600	23
SPAIN	0.005173	-0.022521	0.021823	0.000254	0.788900	88
SRI LANKA	0.006590	1.232132	15.107610	0.110998	0.000100	123
SUDAN	0.055406	0.383937	0.065494	0.002178	0.625200	32
SURINAME	-0.128074	0.496387	0.072442	0.001226	0.655900	61
SWAZILAND	-0.194573	1.188155	0.378614	0.006376	0.279400	61
SWEDEN	-9.957176	0.238826	0.925261	0.010895	0.312100	86
SWITZERLAND	0.018442	-0.130859	0.407483	0.003356	0.660500	123
SYRIA	0.058169	-1.108326	0.944422	0.024251	0.052000	40
TAIWAN	0.019085	-0.454706	2.018731	0.016410	0.153800	123
TAJIKISTAN	0.282723	-0.415815	0.072594	0.001066	0.657000	70
TANZANIA	0.017904	0.063439	0.029356	0.000752	0.748600	41
THAILAND	0.013753	-0.111446	0.249471	0.002827	0.674500	90

TOGO	0.004181	0.696847	68.767660	0.579010	0.000000	52
TONGA	0.049557	0.238581	1.395310	0.023103	0.297200	61
TRINIDAD & TOBAGO	0.003424	0.040464	0.053875	0.001345	0.810800	42
TUNISIA	0.014681	0.014392	0.003617	0.000043	0.946800	87
TURKEY	-0.000087	-0.008050	0.000818	0.000015	0.980200	55
TURKMENISTAN						
TUVALU						
UGANDA	0.018101	0.250265	0.618455	0.010551	0.529100	60
UKRAINE	-0.019681	0.203950	0.116227	0.002274	0.694000	53
UNITED ARAB EMIRATES	-0.028808	1.152001	9.504361	0.147344	0.026900	57
UNITED KINGDOM	0.003056	0.335130	1.517697	0.012388	0.089800	123
UNITED STATES OF AMERICA	0.017832	-0.827096	5.998863	0.047236	0.094400	123
URUGUAY	-0.020499	1.216133	0.151406	0.002189	0.825700	71
UZBEKISTAN						
VANUATU	0.013720	0.014159	0.005779	0.000098	0.873900	61
VENEZUELA	0.038320	-0.485501	5.374761	0.100699	0.003800	50
VIETNAM						
YEMEN						
ZAMBIA	0.024011	0.173793	1.327350	0.020318	0.146000	66
ZIMBABWE	0.042322	0.386687	0.791035	0.024124	0.523200	34

Attachment 7.1 - Descriptive Statistics for β

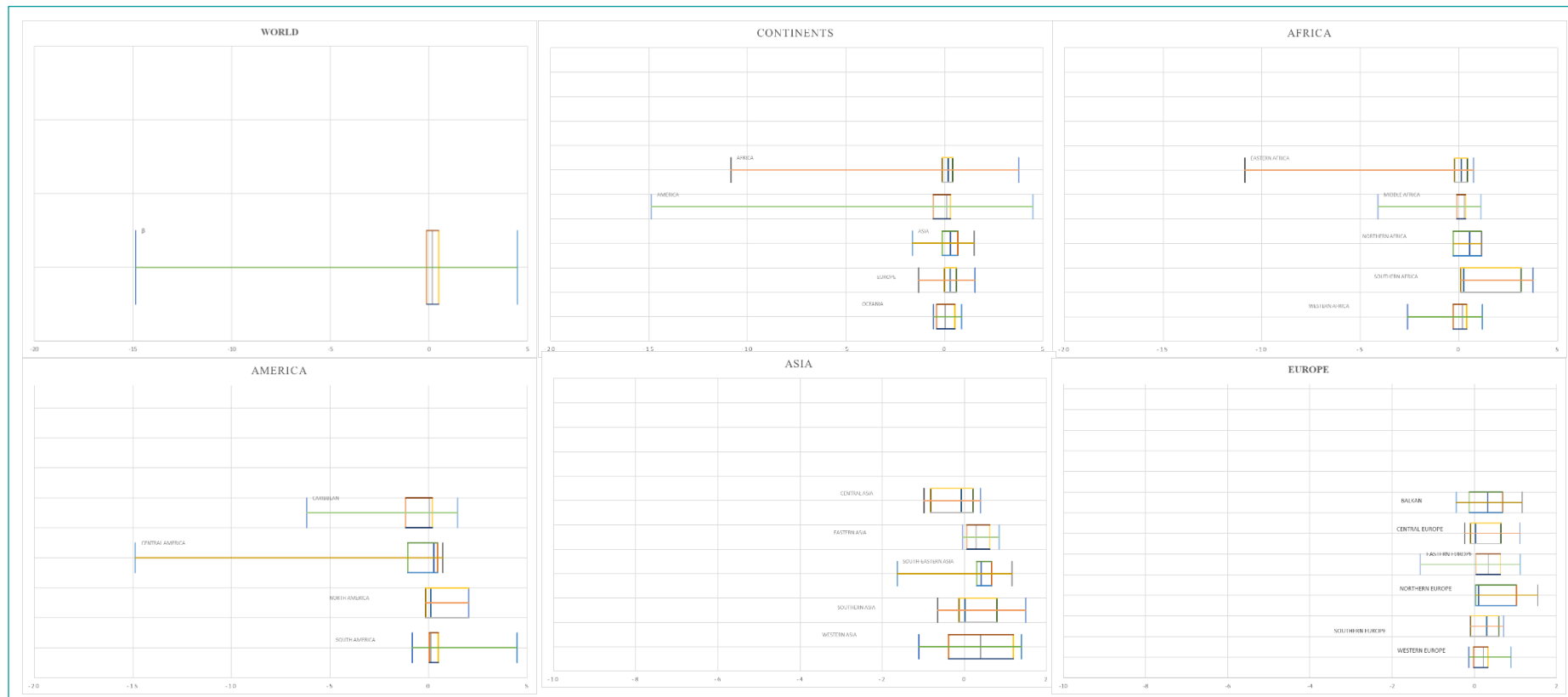
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	-0.049455	0.171816	-14.872090	4.478743	19.350833	3.299932	1.816571	-3673.17%
AFRICA	-0.269092	0.171226	-10.848240	3.754826	14.603066	4.816421	2.194635	-815.57%
EASTERN AFRICA	-1.028237	0.107370	-10.848240	0.736254	11.584494	9.707844	3.115741	-303.02%
MIDDLE AFRICA	-0.204505	0.272744	-4.117254	1.125314	5.242568	2.282572	1.510818	-738.77%
NORTHERN AFRICA	0.478113	0.540531	-0.305016	1.136407	1.441423	0.381359	0.617543	129.16%
SOUTHERN AFRICA	1.341528	0.244791	0.075054	3.754826	3.679772	2.924942	1.710246	127.48%
WESTERN AFRICA	-0.082390	0.173793	-2.601066	1.188155	3.789221	0.934143	0.966511	-1173.10%
AMERICA	-0.442985	0.097038	-14.872090	4.478743	19.350833	8.113478	2.848417	-643.01%
CARIBBEAN	-0.553793	0.039428	-6.184331	1.476299	7.660630	2.746455	1.657243	-299.25%
CENTRAL AMERICA	-2.062770	0.255764	-14.872090	0.717920	15.590010	32.244643	5.678437	-275.28%
NORTH AMERICA	0.654000	0.097038	-0.156348	2.021310	2.177658	1.418204	1.190884	182.09%
SOUTH AMERICA	0.550143	0.105852	-0.827096	4.478743	5.305839	2.198873	1.482860	269.54%
ASIA	0.221385	0.290471	-1.640902	1.489263	3.130165	0.473217	0.687908	310.73%
CENTRAL ASIA	-0.263886	-0.077153	-0.985635	0.386292	1.371927	0.307124	0.554188	-210.01%
EASTERN ASIA	0.338079	0.280086	-0.051251	0.848285	0.899536	0.116862	0.341851	101.12%

SOUTH-EASTERN ASIA	0.282482	0.402206	-1.640902	1.161482	2.802384	0.554203	0.744448	263.54%
SOUTHERN ASIA	0.204318	0.014754	-0.648553	1.489263	2.137816	0.500387	0.707380	346.22%
WESTERN ASIA	0.316362	0.395666	-1.108326	1.386182	2.494508	0.642496	0.801559	253.37%
EUROPE	0.294829	0.268074	-1.315902	1.546213	2.862115	0.242605	0.492550	167.06%
BALKAN	0.329375	0.330989	-0.438990	1.161730	1.600720	0.235553	0.485338	147.35%
CENTRAL EUROPE	0.240664	0.031593	-0.229099	1.105660	1.334759	0.208806	0.456953	189.87%
EASTERN EUROPE	0.253845	0.341932	-1.315902	1.115039	2.430941	0.505026	0.710652	279.96%
NORTHERN EUROPE	0.448622	0.104477	0.023854	1.546213	1.522359	0.414971	0.644182	143.59%
SOUTHERN EUROPE	0.289692	0.304768	-0.092474	0.709758	0.802232	0.116650	0.341540	117.90%
WESTERN EUROPE	0.252608	0.221388	-0.130859	0.891123	1.021982	0.127962	0.357718	141.61%
OCEANIA	0.059352	0.014159	-0.558237	0.849807	1.408044	0.257264	0.507212	854.58%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	-4.906489	33.509999	178	0.136158	-0.111446	0.171816	0.496387	12.92%	17.98%	25.28%
AFRICA	-3.120053	12.434234	52	0.304341	-0.133379	0.171226	0.415996	9.62%	15.38%	15.38%
EASTERN AFRICA	-2.542502	5.863623	19	0.714800	-0.224370	0.107370	0.415996	10.53%	10.53%	10.53%
MIDDLE AFRICA	-2.655138	7.654085	9	0.503606	-0.104332	0.272744	0.330151	0.00%	0.00%	0.00%
NORTHERN AFRICA	-0.503151	-0.434277	4	0.308771	-0.305016	0.540531	1.136407	25.00%	50.00%	50.00%
SOUTHERN AFRICA	0.872419	-1.767664	5	0.764845	0.076524	0.244791	3.154901	0.00%	20.00%	20.00%
WESTERN AFRICA	-1.679654	2.930684	15	0.249552	-0.306080	0.173793	0.386687	13.33%	20.00%	20.00%
AMERICA	-3.867549	19.212573	37	0.468277	-0.586364	0.097038	0.300777	13.51%	16.22%	24.32%
CARIBBEAN	-2.622715	8.758508	17	0.401940	-1.159394	0.039428	0.190334	5.88%	5.88%	5.88%
CENTRAL AMERICA	-2.588775	6.760984	7	2.146247	-1.069004	0.255764	0.460128	0.00%	14.29%	14.29%
NORTH AMERICA	1.644253		3	0.687557	-0.156348	0.097038	2.021310	0.00%	0.00%	33.33%
SOUTH AMERICA	2.418575	6.645394	10	0.468921	0.040464	0.105852	0.496387	40.00%	40.00%	60.00%
ASIA	-0.366550	0.369812	41	0.107433	-0.112956	0.290471	0.665357	17.07%	26.83%	41.46%
CENTRAL ASIA	-0.335454	-1.562866	5	0.247840	-0.827959	-0.077153	0.206820	20.00%	20.00%	20.00%
EASTERN ASIA	0.533471	-0.943283	6	0.139560	0.053883	0.280086	0.617384	16.67%	16.67%	50.00%

SOUTH-EASTERN ASIA	-2.127004	5.857265	10	0.235415	0.290471	0.402206	0.653062	20.00%	30.00%	40.00%
SOUTHERN ASIA	1.067907	0.933648	7	0.267365	-0.131495	0.014754	0.790238	14.29%	42.86%	42.86%
WESTERN ASIA	-0.114871	-1.098619	13	0.222312	-0.390720	0.395666	1.192067	15.38%	23.08%	46.15%
EUROPE	-0.220089	2.389852	41	0.076923	-0.014806	0.268074	0.597781	7.32%	9.76%	19.51%
BALKAN	0.132473	0.586368	8	0.171593	-0.122286	0.330989	0.691978	0.00%	0.00%	0.00%
CENTRAL EUROPE	1.084180	0.292221	8	0.161557	-0.089392	0.031593	0.643619	0.00%	0.00%	25.00%
EASTERN EUROPE	-1.665928	4.053136	8	0.251253	0.041712	0.341932	0.638326	12.50%	25.00%	25.00%
NORTHERN EUROPE	1.785592	3.042108	5	0.288087	0.040987	0.104477	1.028329	0.00%	0.00%	0.00%
SOUTHERN EUROPE	-0.031664	-2.069176	6	0.139433	-0.084588	0.304768	0.595918	16.67%	16.67%	33.33%
WESTERN EUROPE	1.202986	2.027422	6	0.146038	-0.022521	0.221388	0.335130	16.67%	16.67%	33.33%
OCEANIA	0.410533	-0.946066	7	0.191708	-0.405534	0.014159	0.508874	42.86%	42.86%	42.86%

Attachment 7.2 – Box Plot of β



Attachment 7.3 - Descriptive Statistics for R-Squared

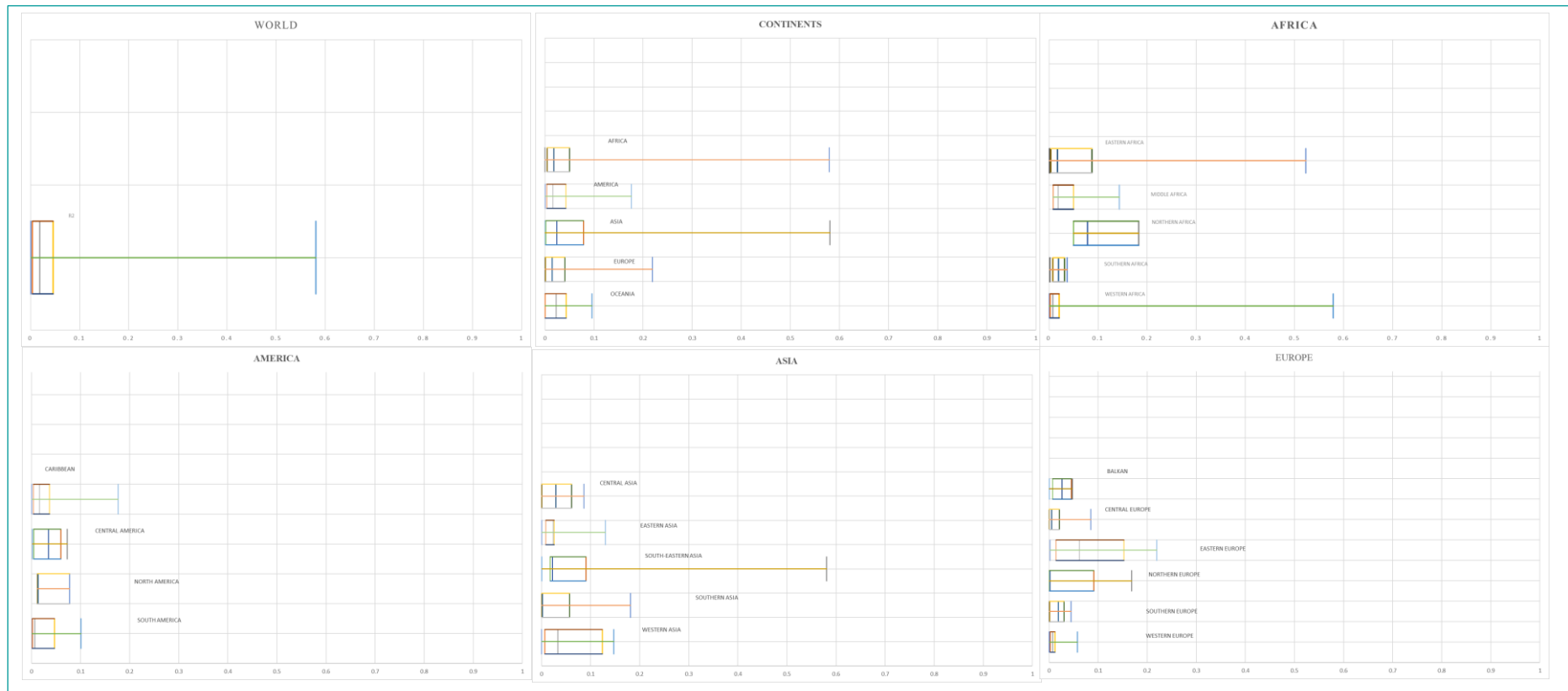
	Mean	Median	Minimum	Maximum	Range	Variance	St.Deviation	Coeff. of Variation
WORLD	0.044568	0.018427	0.000015	0.580537	0.580522	0.006846	0.082742	185.65%
AFRICA	0.052349	0.017995	0.000043	0.579010	0.578967	0.011991	0.109506	209.18%
EASTERN AFRICA	0.061679	0.017495	0.000944	0.522708	0.521764	0.014740	0.121408	196.84%
MIDDLE AFRICA	0.036664	0.018494	0.008109	0.143019	0.134910	0.001897	0.043549	118.78%
NORTHERN AFRICA	0.097400	0.078424	0.050208	0.182544	0.132336	0.003402	0.058324	59.88%
SOUTHERN AFRICA	0.019586	0.018983	0.001747	0.037219	0.035472	0.000174	0.013199	67.39%
WESTERN AFRICA	0.048851	0.007791	0.000043	0.579010	0.578967	0.021617	0.147027	300.97%
AMERICA	0.033370	0.016521	0.000298	0.176226	0.175928	0.001611	0.040139	120.28%
CARIBBEAN	0.035718	0.016521	0.000298	0.176226	0.175928	0.002401	0.048999	137.18%
CENTRAL AMERICA	0.034611	0.034385	0.001888	0.073078	0.071190	0.000686	0.026192	75.68%
NORTH AMERICA	0.034519	0.013256	0.012410	0.077891	0.065481	0.001411	0.037564	108.82%
SOUTH AMERICA	0.028166	0.006723	0.001226	0.100699	0.099473	0.001363	0.036920	131.08%
ASIA	0.058370	0.024251	0.000015	0.580537	0.580522	0.010415	0.102055	174.84%
CENTRAL ASIA	0.030737	0.029518	0.000209	0.086669	0.086460	0.001241	0.035230	114.62%
EASTERN ASIA	0.035503	0.023924	0.000621	0.129923	0.129302	0.002242	0.047349	133.37%

SOUTH-EASTERN ASIA	0.104695	0.022437	0.000430	0.580537	0.580107	0.033438	0.182861	174.66%
SOUTHERN ASIA	0.035576	0.001612	0.000088	0.180919	0.180831	0.004534	0.067335	189.27%
WESTERN ASIA	0.056193	0.032955	0.000015	0.147344	0.147329	0.003348	0.057858	102.96%
EUROPE	0.033550	0.014712	0.000030	0.219380	0.219350	0.002418	0.049177	146.58%
BALKAN	0.025994	0.026444	0.000792	0.047382	0.046590	0.000268	0.016385	63.03%
CENTRAL EUROPE	0.016581	0.005412	0.000030	0.085032	0.085002	0.000827	0.028763	173.47%
EASTERN EUROPE	0.080696	0.061669	0.001786	0.219380	0.217594	0.005642	0.075113	93.08%
NORTHERN EUROPE	0.037289	0.001780	0.000573	0.168394	0.167821	0.005406	0.073527	197.18%
SOUTHERN EUROPE	0.019279	0.019072	0.000676	0.044765	0.044089	0.000310	0.017610	91.34%
WESTERN EUROPE	0.014546	0.007126	0.000254	0.058110	0.057856	0.000479	0.021890	150.49%
OCEANIA	0.029639	0.023103	0.000098	0.095560	0.095462	0.001123	0.033505	113.04%

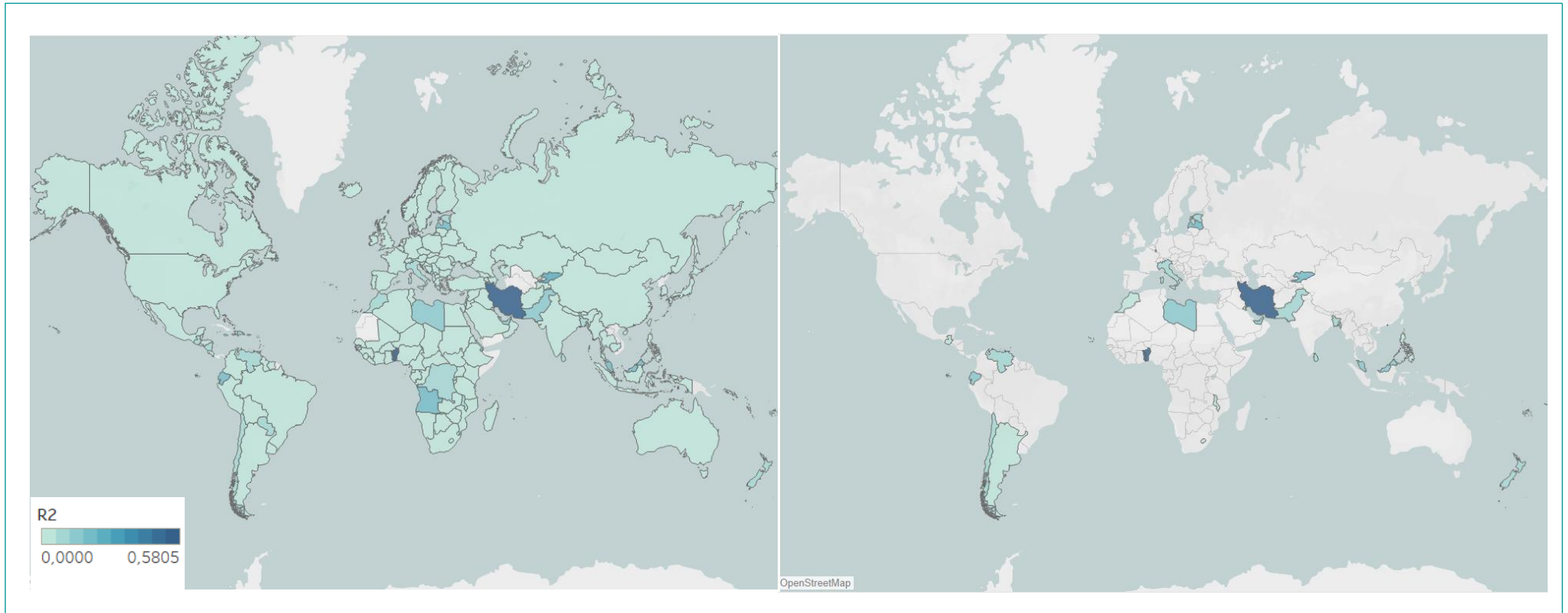
	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	4.476844	24.577574	178	0.006202	0.003356	0.018427	0.045827
AFRICA	3.920912	16.241604	52	0.015186	0.004963	0.017995	0.050208
EASTERN AFRICA	3.391891	12.676743	19	0.027853	0.003561	0.017495	0.087095
MIDDLE AFRICA	2.166349	5.155603	9	0.014516	0.008539	0.018494	0.050171
NORTHERN AFRICA	1.673390	3.147681	4	0.029162	0.050208	0.078424	0.182544
SOUTHERN AFRICA	-0.020609	0.246571	5	0.005903	0.007974	0.018983	0.031501
WESTERN AFRICA	3.840442	14.818153	15	0.037962	0.002178	0.007791	0.020318
AMERICA	1.794057	3.475557	37	0.006599	0.003782	0.016521	0.042860
CARIBBEAN	1.998249	3.619177	17	0.011884	0.003794	0.016521	0.036664
CENTRAL AMERICA	0.149917	-0.904923	7	0.009900	0.004819	0.034385	0.059894
NORTH AMERICA	1.731062		3	0.021687	0.012410	0.013256	0.077891
SOUTH AMERICA	1.259807	0.226718	10	0.011675	0.002189	0.006723	0.047236
ASIA	3.721093	17.182856	41	0.015938	0.002220	0.024251	0.078994
CENTRAL ASIA	1.151576	1.266652	5	0.015755	0.000693	0.029518	0.061391
EASTERN ASIA	2.193358	5.102794	6	0.019330	0.008730	0.023924	0.025896

SOUTH-EASTERN ASIA	2.409473	5.837809	10	0.057826	0.017335	0.022437	0.090447
SOUTHERN ASIA	2.209055	4.881718	7	0.025450	0.000113	0.001612	0.057163
WESTERN ASIA	0.698554	-1.337096	13	0.016047	0.006831	0.032955	0.123728
EUROPE	2.340004	5.586598	41	0.007680	0.001570	0.014712	0.040810
BALKAN	-0.192302	-0.710217	8	0.005793	0.007694	0.026444	0.045827
CENTRAL EUROPE	2.431163	6.234199	8	0.010169	0.000052	0.005412	0.020847
EASTERN EUROPE	0.935829	0.094691	8	0.026556	0.014017	0.061669	0.152840
NORTHERN EUROPE	2.201083	4.866561	5	0.032882	0.000780	0.001780	0.091553
SOUTHERN EUROPE	0.318684	-1.392556	6	0.007189	0.001359	0.019072	0.030728
WESTERN EUROPE	2.186469	4.974939	6	0.008937	0.002274	0.007126	0.012388
OCEANIA	1.428382	2.221795	7	0.012664	0.000257	0.023103	0.043596

Attachment 7.4 – Box Plot of R-Squared



Attachment 7.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN	0.113086	-1.025154	1.518236	0.036568	0.145900	42
ALBANIA	0.385161	8.185020	0.568501	0.008172	0.126100	71
ALGERIA	0.010708	0.534298	1.051520	0.017510	0.344400	61
ANGOLA	-0.251540	-10.410170	5.980609	0.142461	0.241600	38
ANGUILLA	-0.065167	0.699550	0.101954	0.001497	0.647500	70
ANTIGUA & BARBUDA	-0.194605	2.977954	0.318202	0.004658	0.359300	70
ARGENTINA	0.024823	0.462209	7.225825	0.058639	0.000500	118
ARMENIA	0.054026	-0.071454	0.107609	0.001653	0.758400	67
ARUBA	0.129194	-2.221886	1.222201	0.043306	0.270300	29
AUSTRALIA	0.009531	-0.149312	0.098554	0.000814	0.806000	123
AUSTRIA	0.011840	-0.699381	0.871575	0.010033	0.441100	88
AZERBAIJAN	0.047699	-0.121006	0.506956	0.007859	0.656200	66
BAHAMAS	-0.253323	-8.215820	0.358671	0.013110	0.359200	29
BAHRAIN	-0.046506	0.493148	0.834476	0.014946	0.301000	57
BANGLADESH	0.035724	-2.330124	5.275883	0.180213	0.003500	26
BARBADOS	-0.010768	0.583717	5.441708	0.178758	0.226500	27
BELARUS	0.008138	0.655000	3.223223	0.061720	0.111300	51
BELGIUM	-0.001106	0.270490	1.396877	0.017161	0.263300	82

BELIZE	0.012288	0.671264	5.418763	0.088227	0.031000	58
BENIN	-0.005517	0.771572	59.806050	0.503392	0.000000	61
BERMUDA	0.440895	-21.891420	0.618160	0.009142	0.273700	69
BHUTAN	0.018574	0.173514	0.211070	0.009503	0.528100	24
BOLIVIA	0.010124	0.030924	0.123928	0.001819	0.652800	70
BOSNIA & HERZEGOVINA	-0.002665	-0.951869	2.442200	0.065226	0.137500	37
BOTSWANA	-0.031091	-0.295104	0.574946	0.014170	0.434300	42
BRAZIL	0.021785	-0.242255	0.380535	0.005485	0.663500	71
BRUNEI						
BULGARIA	0.007677	0.886516	2.489978	0.032984	0.256800	75
BURKINA FASO	0.003860	0.249522	1.119280	0.018618	0.233700	61
BURUNDI	0.013714	0.724201	1.928217	0.026082	0.064400	74
CAMBODIA	0.004959	0.425089	1.273586	0.020128	0.155700	64
CAMEROON	0.045552	-0.335870	0.076536	0.001296	0.689900	61
CANADA	0.021994	-1.061480	3.104545	0.025016	0.237500	123
CAPE VERDE	0.012715	1.197850	2.986615	0.041488	0.184100	71
CAYMAN ISLANDS	0.024003	0.298334	0.205282	0.011931	0.657400	19
CENTRAL AFRICAN REPUBLIC	0.018645	0.180523	0.128184	0.002168	0.420300	61
CHAD	0.191063	-0.506799	0.056346	0.001126	0.560700	52

CHILE	0.016808	0.115613	0.060654	0.000501	0.869400	123
CHINA	-0.017614	0.885311	1.288570	0.013813	0.187700	94
COLOMBIA	0.012991	0.458846	2.140827	0.019981	0.217100	107
COMOROS	-0.005163	0.381463	13.649870	0.169249	0.000000	69
COSTA RICA	0.006984	-4.021336	2.803020	0.039589	0.231100	70
CROATIA	0.001010	-0.244343	0.417132	0.012483	0.484400	35
CUBA						
CURACAO						
CYPRUS	0.107090	1.782389	0.683884	0.064011	0.428900	12
CZECH REPUBLIC	0.006731	0.639016	1.468876	0.021144	0.247300	70
DEMOCRATIC REPUBLIC OF CONGO	-0.751842	-0.437259	0.004333	0.000181	0.925200	26
DENMARK	0.025212	-0.420673	1.225240	0.010821	0.408000	114
DJIBOUTI	-0.004028	0.518290	3.810479	0.106407	0.060500	34
DOMINICA	0.004820	0.034176	0.011550	0.000196	0.942500	61
DOMINICAN REPUBLIC	0.191375	-15.202990	26.133360	0.274702	0.008700	71
EAST TIMOR	-0.021069	0.157899	4.679217	0.342068	0.000400	11
ECUADOR	0.049233	-1.776859	5.556351	0.105722	0.004600	49
EGYPT	0.017296	0.343151	0.256341	0.002779	0.627600	94
EL SALVADOR	0.025007	-0.276014	0.166752	0.002818	0.336600	61

EQUATORIAL GUINEA	0.123702	-0.846314	0.047715	0.002644	0.899600	20
ERITREA	-0.013271	0.597091	1.927370	0.027962	0.144300	69
ESTONIA	0.005922	0.922458	2.729233	0.030081	0.168100	90
ETHIOPIA	0.020215	0.566964	0.729542	0.017483	0.246500	43
FIJI	0.029092	-0.521796	0.323750	0.005457	0.414600	61
FINLAND	0.024194	-0.437742	0.409161	0.003370	0.541200	123
FRANCE	0.018009	-0.615976	2.426248	0.019657	0.039700	123
GABON	0.011058	-0.201305	0.206364	0.003117	0.652300	68
GAMBIA	0.195796	-7.188747	4.606250	0.082837	0.138000	53
GEORGIA	0.036296	0.124683	0.114899	0.002795	0.797300	43
GERMANY	0.025303	-0.318290	2.264082	0.018368	0.005600	123
GHANA	0.013687	-0.413980	1.435464	0.042932	0.128600	34
GREECE	0.012208	0.525841	0.961526	0.007884	0.355300	123
GRENADA	0.008269	-0.260637	0.698953	0.011708	0.279200	61
GUATEMALA	0.040953	-1.491849	1.468624	0.020841	0.214900	71
GUINEA						
GUINEA-BISSAU	-0.003826	0.327259	15.382130	0.206799	0.007000	61
GUYANA	3.388916	-66.573040	1.168180	0.019098	0.331200	62
HAITI	0.210757	1.018260	0.081959	0.001387	0.786500	61

HONDURAS	0.034016	1.177507	2.163652	0.030837	0.258000	70
HONG KONG	-0.025431	2.746882	27.786280	0.186753	0.000000	123
HUNGARY	0.029736	-0.089392	0.111590	0.001052	0.802100	108
ICELAND	0.015382	-0.519433	6.310752	0.092383	0.250400	64
INDIA	0.024118	0.370338	1.576191	0.014384	0.302900	110
INDONESIA	0.012632	0.810587	3.497982	0.028097	0.043500	123
IRAN	-0.010936	1.336877	91.838550	0.681100	0.000000	45
IRAQ	-0.018913	0.125549	0.116978	0.004657	0.566900	27
IRELAND	0.006044	-0.242376	0.238956	0.002978	0.644900	82
ISRAEL	0.030989	-0.132880	0.148964	0.001240	0.726800	122
ITALY	-0.010065	1.381762	6.988161	0.075968	0.010900	87
IVORY COAST	-0.005197	0.451308	5.800861	0.089518	0.036600	61
JAMAICA	0.017705	0.899738	12.433830	0.137491	0.005400	80
JAPAN	-0.010895	2.210939	3.373708	0.027126	0.019000	123
JORDAN	-0.000168	0.331172	0.555563	0.005525	0.593000	102
KAZAKHSTAN	-0.011132	0.789019	3.017194	0.059141	0.066700	50
KENYA	-0.020384	0.948802	5.481924	0.055664	0.007000	95
KIRIBATI						
KOSOVO	0.045732	1.038360	1.126811	0.111270	0.109800	11

KUWAIT	0.010991	-1.028663	3.329836	0.057086	0.177100	57
KYRGYZSTAN	0.151913	-1.767523	15.286230	0.245419	0.000400	49
LAOS	-0.036098	0.833378	4.815921	0.146756	0.010300	30
LATVIA	0.021637	-1.216284	3.918155	0.109086	0.063200	34
LEBANON	0.000301	0.067861	0.109293	0.001187	0.736000	94
LESOTHO	0.005997	0.514780	3.801881	0.056073	0.032600	66
LIBERIA	-0.015843	0.454806	0.382359	0.009962	0.132600	40
LIBYA	0.002713	0.788693	3.477510	0.054783	0.106700	62
LITHUANIA	0.018822	0.409982	1.100791	0.014094	0.349800	79
LUXEMBOURG	-0.005759	0.722547	3.847527	0.045887	0.058000	82
MACAU	0.012834	0.616984	0.208998	0.005617	0.688200	39
MADAGASCAR	0.227363	-7.849019	1.473950	0.029792	0.130900	50
MALAWI	0.005407	0.611697	7.609635	0.153390	0.000200	44
MALAYSIA	-0.010449	1.135175	4.484227	0.035735	0.046100	123
MALDIVES						
MALI	0.021097	-0.278012	1.669043	0.027511	0.308500	61
MALTA	-0.015007	0.986264	11.735150	0.210552	0.000200	46
MARSHALL ISLANDS						
MAURITANIA	0.016100	-0.049223	0.026801	0.001115	0.846000	26

MAURITIUS	0.008623	-0.182416	0.100608	0.002281	0.797300	46
MEXICO	0.019258	0.043912	0.011427	0.000157	0.912300	75
MICRONESIA						
MOLDOVA	0.072016	0.658556	1.346200	0.017183	0.181500	79
MONGOLIA	-0.115242	1.897473	0.595272	0.011765	0.418200	52
MONTENEGRO	0.012801	1.758332	4.845539	0.212100	0.044200	20
MONTSERRAT	0.018996	0.281827	0.448161	0.006547	0.613500	70
MOROCCO	-0.007578	1.338140	6.083659	0.082119	0.024000	70
MOZAMBIQUE	-0.204746	2.453658	1.492804	0.024276	0.317700	62
MYANMAR	0.098702	-1.298138	2.088419	0.090453	0.136200	23
NAMIBIA	0.023801	-0.006043	0.006512	0.000102	0.896700	66
NEPAL	0.014020	0.643306	0.924382	0.017142	0.377100	55
NETHERLANDS	0.011348	0.407526	0.827303	0.006791	0.267700	123
NEW ZEALAND	-0.014254	0.405644	11.707920	0.096197	0.003500	112
NICARAGUA	0.083989	1.199595	0.539158	0.007866	0.160200	70
NIGER	0.001494	0.361776	2.851181	0.046097	0.030200	61
NIGERIA	-0.005803	0.421326	2.457118	0.035376	0.100200	69
NORTH MACEDONIA	0.019483	0.372832	0.281384	0.006985	0.427600	42
NORWAY	0.024784	-1.602635	3.378285	0.071305	0.055200	46

OMAN	0.015509	-0.412852	0.938576	0.011596	0.285300	82
PAKISTAN	-0.005754	1.364594	5.662252	0.116358	0.032300	45
PALAU						
PALESTINE						
PANAMA						
PAPUA NEW GUINEA						
PARAGUAY	-0.115439	5.817451	5.319348	0.071574	0.102000	71
PERU	0.005949	0.557938	5.556301	0.050258	0.011400	107
PHILIPPINES	0.024690	-0.367904	1.951433	0.015872	0.149700	123
POLAND	-0.029066	1.154400	2.519530	0.027834	0.130900	90
PORTUGAL	-0.004780	0.205048	0.098761	0.001147	0.670600	88
PUERTO RICO						
QATAR	-0.012870	0.872282	7.898072	0.141294	0.054000	50
REPUBLIC OF CONGO	0.277062	3.184826	0.393309	0.014358	0.406900	29
ROMANIA	0.035115	-0.509502	0.629151	0.011732	0.159400	55
RUSSIAN FEDERATION	-0.003116	1.017135	7.595726	0.074764	0.015500	96
RWANDA	-0.041257	0.691121	1.738172	0.070263	0.100500	25
SAINT KITTS AND NEVIS	0.026521	-0.081342	0.086849	0.001276	0.742800	70
SAINT LUCIA	0.012472	0.162701	0.135832	0.001994	0.684100	70

SAINT VINCENT AND THE GRENADINES	0.006547	0.059808	0.043363	0.000637	0.830000	70
SAMOA	-0.006850	1.100913	3.436823	0.055045	0.019800	61
SAO TOME AND PRINCIPE	0.007976	0.029317	0.139450	0.002047	0.645700	70
SAUDI ARABIA	0.016984	0.407905	0.522353	0.006407	0.487400	83
SENEGAL	0.033809	-0.735881	3.185798	0.051230	0.034200	61
SERBIA	-0.008204	0.351624	0.662078	0.013606	0.303400	50
SEYCHELLES	0.064055	-1.451915	2.635490	0.042077	0.364300	62
SIERRA LEONE	-0.232213	-4.183009	1.990899	0.028044	0.049100	71
SINGAPORE	-0.019971	1.675522	19.872490	0.141067	0.000000	123
SLOVAKIA	-0.011365	0.512564	1.109934	0.020899	0.520200	54
SLOVENIA	-0.005544	0.710691	0.523031	0.009958	0.355500	54
SOLOMON ISLANDS	-0.292711	-0.991461	0.068531	0.001160	0.594000	61
SOMALIA	0.009260	1.512820	5.037663	0.054146	0.047200	90
SOUTH AFRICA	0.001702	1.083925	6.595876	0.061302	0.015700	103
SOUTH KOREA	0.007127	0.245091	0.062291	0.000537	0.818800	118
SOUTH SUDAN	0.708079	-4.306142	0.292780	0.013750	0.608600	23
SPAIN	0.015564	-0.964602	2.257838	0.025582	0.366200	88
SRI LANKA	-0.023430	1.698397	7.154865	0.055830	0.002100	123
SUDAN	0.057541	0.349705	0.043971	0.001464	0.725100	32

SURINAME	-0.122147	0.158000	0.039417	0.000668	0.602900	61
SWAZILAND	-0.211395	2.511198	0.634319	0.010637	0.236200	61
SWEDEN	-9.956648	0.231814	0.856020	0.010088	0.354300	86
SWITZERLAND	0.017201	-0.032594	0.018238	0.000151	0.931000	123
SYRIA						
TAIWAN	0.025210	-0.812163	0.876206	0.007189	0.237000	123
TAJIKISTAN	0.312381	-0.783834	0.238494	0.003495	0.519800	70
TANZANIA	0.015551	0.233730	0.213613	0.005447	0.379600	41
THAILAND	0.007499	-0.483099	0.086353	0.002328	0.739800	39
TOGO	-0.011436	0.806166	89.318680	0.602208	0.000000	61
TONGA	0.043620	1.196835	7.329625	0.110503	0.006100	61
TRINIDAD & TOBAGO	0.004243	0.626297	2.703805	0.061867	0.128100	43
TUNISIA	0.014363	0.036240	0.011194	0.000132	0.897800	87
TURKEY	0.010090	-0.540514	0.945004	0.017518	0.385700	55
TURKMENISTAN	0.046377	0.506991	0.373988	0.006299	0.484500	61
TUVALU						
UGANDA	0.012959	0.406852	1.195146	0.020190	0.463700	60
UKRAINE	-0.002763	-0.256601	0.143284	0.002802	0.546200	53
UNITED ARAB EMIRATES	-0.029747	1.278722	4.923843	0.082168	0.017900	57

UNITED KINGDOM	0.005504	0.283402	0.209182	0.001726	0.682200	123
UNITED STATES OF AMERICA	0.026240	-2.016628	11.805340	0.088892	0.046200	123
URUGUAY	0.013312	-0.775228	0.034843	0.000505	0.897500	71
UZBEKISTAN	-0.000881	0.012069	0.583207	0.050349	0.058500	13
VANUATU	0.013729	0.057835	0.024912	0.000422	0.898800	61
VENEZUELA	0.034644	-0.587025	4.964664	0.093735	0.001600	50
VIETNAM	0.016509	-0.425495	4.987197	0.094121	0.029200	50
YEMEN	-0.084505	0.210040	0.333242	0.009431	0.488100	37
ZAMBIA	0.021369	0.274221	1.731680	0.026345	0.089700	66
ZIMBABWE	0.048599	0.332200	0.420040	0.012956	0.557000	34

Attachment 8.1 - Descriptive Statistics for β

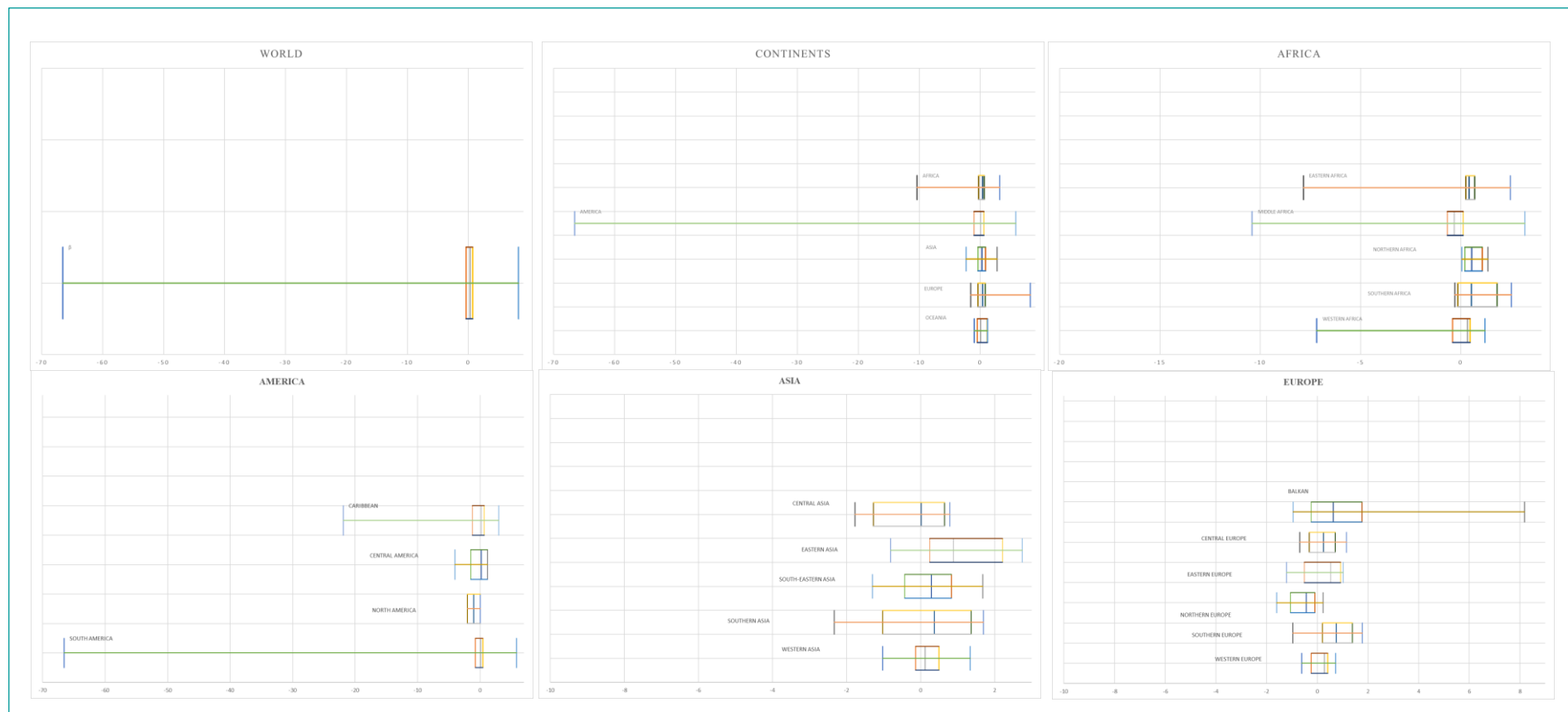
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	-0.494323	0.272356	-66.573040	8.185020	74.758060	31.102809	5.576989	-1128.21%
AFRICA	-0.254485	0.343151	-10.410170	3.184826	13.594996	5.675333	2.382296	-936.12%
EASTERN AFRICA	-0.167720	0.406852	-7.849019	2.453658	10.302677	5.220139	2.284762	-1362.25%
MIDDLE AFRICA	-1.038117	-0.335870	-10.410170	3.184826	13.594996	13.770831	3.710907	-357.47%
NORTHERN AFRICA	0.608104	0.534298	0.036240	1.338140	1.301900	0.242060	0.491996	80.91%
SOUTHERN AFRICA	0.761751	0.514780	-0.295104	2.511198	2.806302	1.232951	1.110383	145.77%
WESTERN AFRICA	-0.520484	0.327259	-7.188747	1.197850	8.386597	4.962361	2.227636	-427.99%
AMERICA	-2.851584	0.051860	-66.573040	5.817451	72.390491	134.694805	11.605809	-407.00%
CARIBBEAN	-2.366573	0.162701	-21.891420	2.977954	24.869374	43.737592	6.613440	-279.45%
CENTRAL AMERICA	-0.456806	0.197625	-4.021336	1.199595	5.220931	4.099412	2.024700	-443.23%
NORTH AMERICA	-1.011399	-1.061480	-2.016628	0.043912	2.060540	1.063337	1.031183	-101.96%
SOUTH AMERICA	-5.196119	0.073269	-66.573040	5.817451	72.390491	376.977530	19.415909	-373.66%
ASIA	0.285467	0.245091	-2.330124	2.746882	5.077006	1.020598	1.010247	353.89%
CENTRAL ASIA	-0.248656	0.012069	-1.767523	0.789019	2.556542	1.077280	1.037921	-417.41%
EASTERN ASIA	1.112931	0.885311	-0.812163	2.746882	3.559045	1.541305	1.241493	111.55%

SOUTH-EASTERN ASIA	0.246301	0.291494	-1.298138	1.675522	2.973660	0.809056	0.899475	365.19%
SOUTHERN ASIA	0.127839	0.370338	-2.330124	1.698397	4.028521	1.948965	1.396053	1092.04%
WESTERN ASIA	0.183804	0.125116	-1.028663	1.336877	2.365540	0.386676	0.621833	338.31%
EUROPE	0.413363	0.351624	-1.602635	8.185020	9.787655	2.146270	1.465015	354.41%
BALKAN	1.424559	0.629674	-0.951869	8.185020	9.136889	8.134834	2.852163	200.21%
CENTRAL EUROPE	0.234627	0.239985	-0.699381	1.154400	1.853781	0.381126	0.617354	263.12%
EASTERN EUROPE	0.210093	0.532491	-1.216284	1.017135	2.233419	0.623996	0.789934	375.99%
NORTHERN EUROPE	-0.549734	-0.437742	-1.602635	0.231814	1.834449	0.437384	0.661350	-120.30%
SOUTHERN EUROPE	0.652784	0.756053	-0.964602	1.782389	2.746991	0.950229	0.974797	149.33%
WESTERN EUROPE	0.137602	0.276946	-0.615976	0.722547	1.338523	0.233240	0.482949	350.97%
OCEANIA	0.156951	0.057835	-0.991461	1.196835	2.188296	0.652907	0.808026	514.83%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	-9.633546	109.889450	184	0.411141	-0.412852	0.272356	0.710691	11.96%	24.46%	29.35%
AFRICA	-2.716875	8.260258	53	0.327233	-0.286558	0.343151	0.651409	11.32%	26.42%	32.08%
EASTERN AFRICA	-2.594206	7.354818	19	0.524160	0.233730	0.406852	0.691121	15.79%	21.05%	36.84%
MIDDLE AFRICA	-2.338452	6.781435	9	1.236969	-0.676557	-0.335870	0.104920	0.00%	0.00%	0.00%
NORTHERN AFRICA	0.661058	0.469571	5	0.220027	0.189696	0.534298	1.063417	0.00%	20.00%	20.00%
SOUTHERN AFRICA	1.138139	1.025827	5	0.496579	-0.150574	0.514780	1.797562	0.00%	40.00%	40.00%
WESTERN AFRICA	-2.471778	5.940597	15	0.575173	-0.413980	0.327259	0.454806	20.00%	46.67%	46.67%
AMERICA	-4.853640	25.917947	38	1.882711	-1.061480	0.051860	0.583717	13.16%	21.05%	21.05%
CARIBBEAN	-2.289100	4.684115	17	1.603995	-1.241262	0.162701	0.662924	11.76%	11.76%	11.76%
CENTRAL AMERICA	-1.302931	1.200591	6	0.826580	-1.491849	0.197625	1.177507	0.00%	16.67%	16.67%
NORTH AMERICA	0.218036		3	0.595354	-2.016628	-1.061480	0.043912	0.00%	33.33%	33.33%
SOUTH AMERICA	-3.406171	11.726271	12	5.604890	-0.775228	0.073269	0.462209	25.00%	33.33%	33.33%
ASIA	-0.071230	0.551106	45	0.150599	-0.390378	0.245091	0.852830	15.56%	31.11%	37.78%
CENTRAL ASIA	-0.779094	-0.574335	5	0.464172	-1.275679	0.012069	0.648005	20.00%	20.00%	60.00%
EASTERN ASIA	-0.213732	-0.818055	7	0.469240	0.245091	0.885311	2.210939	14.29%	28.57%	28.57%

SOUTH-EASTERN ASIA	-0.114155	-0.559287	10	0.284439	-0.425495	0.291494	0.833378	20.00%	60.00%	60.00%
SOUTHERN ASIA	-0.897511	0.345514	7	0.527659	-1.025154	0.370338	1.364594	28.57%	42.86%	42.86%
WESTERN ASIA	0.241657	0.308101	16	0.155458	-0.132880	0.125116	0.493148	6.25%	12.50%	18.75%
EUROPE	3.780253	20.050983	41	0.228797	-0.369482	0.351624	0.804532	4.88%	14.63%	21.95%
BALKAN	2.367094	6.141587	8	1.008392	-0.244343	0.629674	1.758332	0.00%	12.50%	12.50%
CENTRAL EUROPE	-0.051268	-0.957333	8	0.218268	-0.318290	0.239985	0.710691	12.50%	12.50%	12.50%
EASTERN EUROPE	-0.889911	-0.305391	8	0.279284	-0.509502	0.532491	0.922458	0.00%	12.50%	25.00%
NORTHERN EUROPE	-0.988548	2.471061	5	0.295765	-1.061034	-0.437742	-0.094430	0.00%	0.00%	20.00%
SOUTHERN EUROPE	-0.795738	0.577259	6	0.397959	0.205048	0.756053	1.381762	16.67%	33.33%	33.33%
WESTERN EUROPE	-0.685920	-0.247591	6	0.197163	-0.242376	0.276946	0.407526	0.00%	16.67%	33.33%
OCEANIA	0.054851	-1.100297	7	0.305405	-0.521796	0.057835	1.100913	28.57%	42.86%	42.86%

Attachment 8.2 – Box Plot of β



Attachment 8.3 - Descriptive Statistics for R-Squared

	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.051353	0.018493	0.000102	0.681100	0.680998	0.008270	0.090938	177.08%
AFRICA	0.058780	0.026345	0.000102	0.602208	0.602106	0.011941	0.109273	185.90%
EASTERN AFRICA	0.045222	0.026345	0.001464	0.169249	0.167785	0.002340	0.048372	106.97%
MIDDLE AFRICA	0.018822	0.002168	0.000181	0.142461	0.142280	0.002168	0.046558	247.36%
NORTHERN AFRICA	0.031465	0.017510	0.000132	0.082119	0.081987	0.001277	0.035738	113.58%
SOUTHERN AFRICA	0.028457	0.014170	0.000102	0.061302	0.061200	0.000792	0.028139	98.88%
WESTERN AFRICA	0.119142	0.042932	0.001115	0.602208	0.601093	0.033738	0.183679	154.17%
AMERICA	0.039275	0.012521	0.000157	0.274702	0.274545	0.003384	0.058170	148.11%
CARIBBEAN	0.044718	0.009142	0.000196	0.274702	0.274506	0.006165	0.078516	175.58%
CENTRAL AMERICA	0.031696	0.025839	0.002818	0.088227	0.085409	0.000956	0.030914	97.53%
NORTH AMERICA	0.038022	0.025016	0.000157	0.088892	0.088735	0.002095	0.045775	120.39%
SOUTH AMERICA	0.035665	0.019540	0.000501	0.105722	0.105221	0.001508	0.038829	108.87%
ASIA	0.066902	0.017142	0.000537	0.681100	0.680563	0.014205	0.119183	178.15%
CENTRAL ASIA	0.072941	0.050349	0.003495	0.245419	0.241924	0.009928	0.099641	136.61%
EASTERN ASIA	0.036114	0.011765	0.000537	0.186753	0.186216	0.004483	0.066952	185.39%

SOUTH-EASTERN ASIA	0.091663	0.063094	0.002328	0.342068	0.339740	0.010466	0.102305	111.61%
SOUTHERN ASIA	0.061428	0.036568	0.009503	0.180213	0.170710	0.004108	0.064093	104.34%
WESTERN ASIA	0.065404	0.008645	0.001187	0.681100	0.679913	0.028423	0.168592	257.77%
EUROPE	0.038074	0.017183	0.000151	0.212100	0.211949	0.002510	0.050096	131.57%
BALKAN	0.057853	0.023295	0.006985	0.212100	0.205115	0.005199	0.072101	124.63%
CENTRAL EUROPE	0.013680	0.014201	0.000151	0.027834	0.027683	0.000100	0.009999	73.09%
EASTERN EUROPE	0.040183	0.023632	0.002802	0.109086	0.106284	0.001418	0.037656	93.71%
NORTHERN EUROPE	0.037593	0.010821	0.003370	0.092383	0.089013	0.001696	0.041179	109.54%
SOUTHERN EUROPE	0.064191	0.044797	0.001147	0.210552	0.209405	0.006039	0.077712	121.06%
WESTERN EUROPE	0.015700	0.011976	0.001726	0.045887	0.044161	0.000273	0.016526	105.26%
OCEANIA	0.038514	0.005457	0.000422	0.110503	0.110081	0.002357	0.048551	126.06%

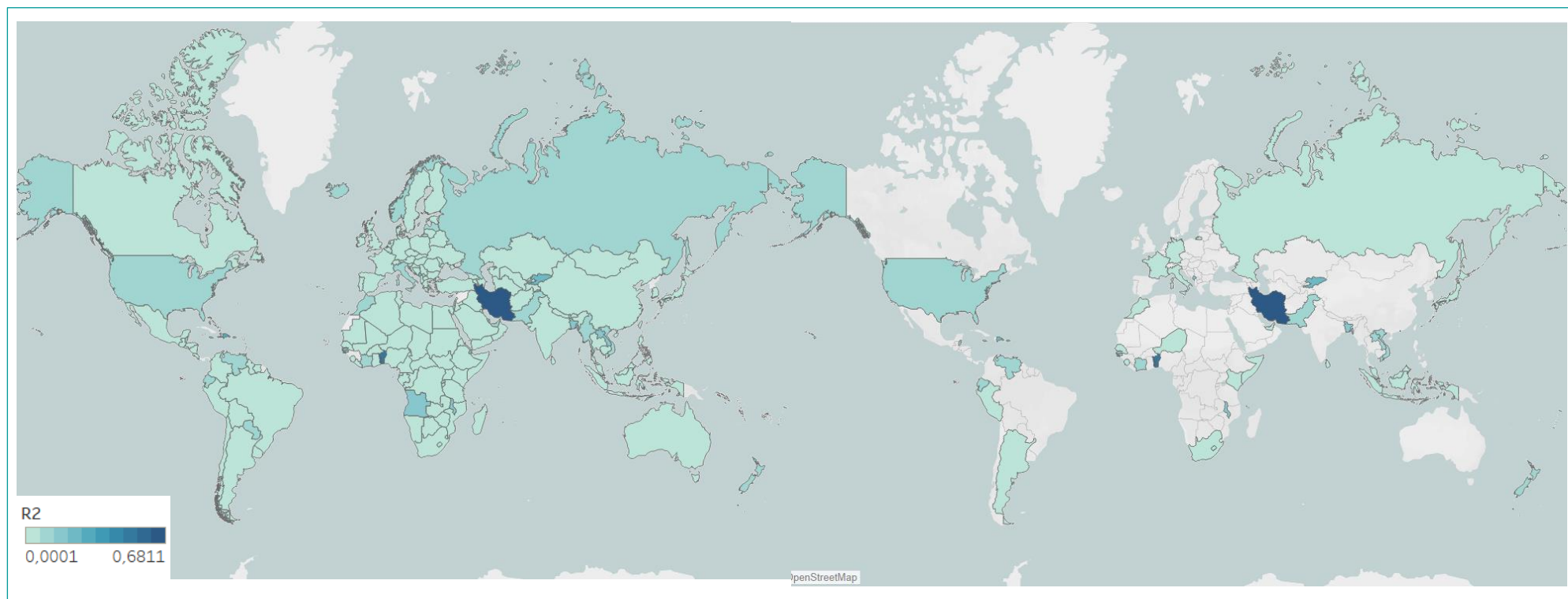
	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	4.188234	22.221784	184	0.006704	0.005457	0.018493	0.061302
AFRICA	3.842410	16.081396	53	0.015010	0.004282	0.026345	0.055869
EASTERN AFRICA	1.678965	2.113355	19	0.011097	0.013750	0.026345	0.055664
MIDDLE AFRICA	2.954093	8.783631	9	0.015519	0.001211	0.002168	0.008738
NORTHERN AFRICA	0.781094	-1.442345	5	0.015983	0.001456	0.017510	0.068451
SOUTHERN AFRICA	0.469853	-2.946727	5	0.012584	0.005370	0.014170	0.058688
WESTERN AFRICA	2.159459	3.670489	15	0.047426	0.027511	0.042932	0.089518
AMERICA	2.396220	6.786515	38	0.009436	0.001819	0.012521	0.058639
CARIBBEAN	2.138372	4.072984	17	0.019043	0.001442	0.009142	0.052587
CENTRAL AMERICA	1.444460	2.370974	6	0.012621	0.007866	0.025839	0.039589
NORTH AMERICA	1.175340		3	0.026428	0.000157	0.025016	0.088892
SOUTH AMERICA	0.739223	-0.963793	12	0.011209	0.000668	0.019540	0.071574
ASIA	3.618801	16.130826	45	0.017767	0.006353	0.017142	0.086311
CENTRAL ASIA	1.889433	3.771448	5	0.044561	0.004897	0.050349	0.152280
EASTERN ASIA	2.561329	6.646619	7	0.025306	0.005617	0.011765	0.027126

SOUTH-EASTERN ASIA	1.821506	3.821134	10	0.032352	0.020128	0.063094	0.141067
SOUTHERN ASIA	1.325159	0.811021	7	0.024225	0.014384	0.036568	0.116358
WESTERN ASIA	3.679212	14.035515	16	0.042148	0.002795	0.008645	0.057086
EUROPE	2.270378	5.487001	41	0.007824	0.008028	0.017183	0.062866
BALKAN	1.714063	2.654062	8	0.025492	0.008172	0.023295	0.111270
CENTRAL EUROPE	-0.163728	-1.272604	8	0.003535	0.001052	0.014201	0.021144
EASTERN EUROPE	0.971224	-0.202702	8	0.013313	0.011732	0.023632	0.074764
NORTHERN EUROPE	0.732163	-2.452755	5	0.018416	0.006729	0.010821	0.081844
SOUTHERN EUROPE	1.694134	3.096487	6	0.031726	0.007884	0.044797	0.075968
WESTERN EUROPE	1.467520	2.208246	6	0.006747	0.002978	0.011976	0.019657
OCEANIA	0.759300	-1.598018	7	0.018351	0.000814	0.005457	0.096197

Attachment 8.4 – Box Plot of R-Squared



Attachment 8.5 – Goodness of Fit Level: All and Only Cases significant at 5%



Country	α	β	F	R ²	p-value of β	N
AFGHANISTAN						
ALBANIA	0.425929	1.161730	0.054678	0.000792	0.578100	71
ALGERIA						
ANGOLA	-0.273839	-9.568511	4.802404	0.117699	0.270200	38
ANGUILLA						
ANTIGUA & BARBUDA						
ARGENTINA	0.027621	0.376821	9.656993	0.076852	0.000000	118
ARMENIA						
ARUBA						
AUSTRALIA	0.013238	-0.368745	0.665755	0.005472	0.483600	123
AUSTRIA	0.010850	-0.567146	0.709725	0.008185	0.509200	88
AZERBAIJAN	0.035013	0.212530	0.637070	0.011450	0.533600	57
BAHAMAS	-0.207281	-6.454768	0.219980	0.006622	0.435800	35
BAHRAIN	-0.050479	0.734815	1.807610	0.031820	0.043300	57
BANGLADESH	0.044923	-2.321304	4.371717	0.154087	0.006000	26
BARBADOS						
BELARUS	0.035725	-0.627479	1.064042	0.021254	0.295500	51
BELGIUM	-0.001188	0.278962	1.605544	0.019674	0.201700	82

BELIZE						
BENIN						
BERMUDA						
BHUTAN						
BOLIVIA	0.009669	0.035855	0.138949	0.002039	0.612900	70
BOSNIA & HERZEGOVINA	-0.003866	-1.162270	1.772418	0.048200	0.159000	37
BOTSWANA						
BRAZIL	-0.018445	1.944132	8.789367	0.112989	0.007300	71
BRUNEI						
BULGARIA	0.005865	0.833246	7.144242	0.089142	0.030300	75
BURKINA FASO						
BURUNDI	0.014149	0.923803	3.299467	0.043818	0.044300	74
CAMBODIA						
CAMEROON						
CANADA	0.013690	-0.142800	0.049122	0.000406	0.827100	123
CAPE VERDE						
CAYMAN ISLANDS						
CENTRAL AFRICAN REPUBLIC						
CHAD						

CHILE	0.000631	0.862064	1.971578	0.016033	0.380900	123
CHINA	0.011282	0.007503	0.022497	0.000221	0.918800	104
COLOMBIA	0.011573	0.548452	2.260268	0.021073	0.218300	107
COMOROS						
COSTA RICA	-0.089444	1.436076	0.140887	0.002068	0.570600	70
CROATIA	0.002199	-0.382993	1.024654	0.030115	0.257200	35
CUBA						
CURACAO						
CYPRUS	0.089800	-0.101266	0.203601	0.015420	0.101500	15
CZECH REPUBLIC	0.007659	0.453413	0.576706	0.008410	0.452700	70
DEMOCRATIC REPUBLIC OF CONGO						
DENMARK	0.019970	0.173867	0.477018	0.004241	0.399000	114
DJIBOUTI	-0.007164	0.702005	3.644586	0.102248	0.080700	34
DOMINICA						
DOMINICAN REPUBLIC	0.238101	-17.218200	19.021760	0.216103	0.052200	71
EAST TIMOR						
ECUADOR						
EGYPT						
EL SALVADOR	0.025157	-0.324116	0.292890	0.004940	0.394900	61

EQUATORIAL GUINEA						
ERITREA						
ESTONIA	0.014210	0.407686	0.794648	0.013071	0.353900	62
ETHIOPIA						
FIJI						
FINLAND	0.020611	0.078320	0.014366	0.000119	0.910300	123
FRANCE	0.014221	-0.196055	0.107927	0.000891	0.717300	123
GABON						
GAMBIA						
GEORGIA	0.038026	0.078982	0.036453	0.000888	0.878000	43
GERMANY	0.034636	-1.477586	8.129684	0.062958	0.000400	123
GHANA						
GREECE	0.012052	0.616882	1.077486	0.008826	0.362100	123
GRENADA						
GUATEMALA	0.002772	-0.114580	2.616578	0.045414	0.136800	57
GUINEA						
GUINEA-BISSAU						
GUYANA						
HAITI	0.184678	2.766051	0.495789	0.008333	0.442500	61

HONDURAS						
HONG KONG	-0.023302	2.721014	27.125060	0.183123	0.000000	123
HUNGARY	0.028802	-0.063209	0.024485	0.000231	0.891600	108
ICELAND	0.005493	-0.025804	0.004536	0.000073	0.942200	64
INDIA	0.002482	1.132577	2.022232	0.017735	0.157900	114
INDONESIA	0.008140	0.559202	2.112986	0.017890	0.161000	118
IRAN						
IRAQ						
IRELAND	0.003518	-0.008917	0.001805	0.000023	0.959300	82
ISRAEL	0.027398	-0.294018	0.269286	0.002487	0.712900	110
ITALY	-0.009720	1.688899	8.058652	0.086598	0.000400	87
IVORY COAST						
JAMAICA						
JAPAN	0.002698	0.155618	6.005597	0.093829	0.025800	60
JORDAN						
KAZAKHSTAN	0.031635	-0.458280	0.583618	0.012013	0.511800	50
KENYA	-0.022056	0.984849	5.453314	0.055390	0.008800	95
KIRIBATI						
KOSOVO						

KUWAIT	0.011261	-1.057601	3.507597	0.059951	0.164400	57
KYRGYZSTAN						
LAOS						
LATVIA	0.022014	-1.319663	5.079112	0.136980	0.027200	34
LEBANON	-0.004697	0.315047	0.280704	0.003042	0.517000	94
LESOTHO						
LIBERIA						
LIBYA						
LITHUANIA	0.018635	0.417683	1.127295	0.014429	0.358800	79
LUXEMBOURG	-0.003103	0.215622	0.567610	0.007045	0.527300	82
MACAU						
MADAGASCAR						
MALAWI						
MALAYSIA	-0.021422	1.809651	8.344690	0.064515	0.003000	123
MALDIVES						
MALI						
MALTA	-0.013516	0.849069	9.069711	0.170902	0.000100	46
MARSHALL ISLANDS						
MAURITANIA						

MAURITIUS						
MEXICO	0.022303	-0.208061	0.232421	0.003174	0.634600	75
MICRONESIA						
MOLDOVA	0.056339	0.991696	1.904596	0.024138	0.132800	79
MONGOLIA						
MONTENEGRO						
MONTSERRAT						
MOROCCO	0.003460	0.755966	2.151465	0.030669	0.075600	70
MOZAMBIQUE						
MYANMAR						
NAMIBIA						
NEPAL	0.028876	0.108092	0.010324	0.000413	0.881700	27
NETHERLANDS	0.011400	0.390807	0.934598	0.007665	0.260000	123
NEW ZEALAND	-0.009327	0.960373	9.144351	0.070263	0.002100	123
NICARAGUA	0.084124	1.195977	0.514817	0.007514	0.167000	70
NIGER						
NIGERIA						
NORTH MACEDONIA						
NORWAY	0.023027	-1.538766	3.074043	0.065302	0.047100	46

OMAN						
PAKISTAN	-0.010033	1.828067	7.697663	0.151835	0.012600	45
PALAU						
PALESTINE						
PANAMA						
PAPUA NEW GUINEA	-0.176151	2.545235	1.027983	0.017125	0.059300	61
PARAGUAY	-0.049640	3.679520	0.840109	0.012029	0.390300	71
PERU						
PHILIPPINES	0.023485	-0.301451	1.429734	0.011678	0.196200	123
POLAND	-0.032919	1.366338	3.379285	0.036981	0.079600	90
PORTUGAL	-0.004663	0.222988	0.140228	0.001628	0.632300	88
PUERTO RICO						
QATAR	-0.017399	0.998290	8.919331	0.156701	0.055400	50
REPUBLIC OF CONGO						
ROMANIA	0.029864	-0.306503	0.267345	0.005019	0.370100	55
RUSSIAN FEDERATION	-0.009712	1.274372	8.286363	0.083459	0.016700	93
RWANDA	-0.046291	0.817456	2.334427	0.092144	0.046600	25
SAINT KITTS AND NEVIS						
SAINT LUCIA						

SAINT VINCENT AND THE GRENADINES						
SAMOA						
SAO TOME AND PRINCIPE	0.004234	0.201580	2.913459	0.041085	0.102100	70
SAUDI ARABIA	0.015734	0.516974	0.676650	0.008284	0.387200	83
SENEGAL						
SERBIA	-0.029048	1.066302	2.272000	0.045194	0.200800	50
SEYCHELLES	0.052630	-2.248843	2.529526	0.073257	0.364300	34
SIERRA LEONE						
SINGAPORE	-0.019326	1.822481	12.725040	0.095158	0.000200	123
SLOVAKIA	-0.010116	0.442442	0.860627	0.016281	0.452000	54
SLOVENIA	0.002312	-0.379753	0.209523	0.004013	0.772100	54
SOLOMON ISLANDS	-0.185359	-3.632274	0.668731	0.011207	0.228800	61
SOMALIA						
SOUTH AFRICA	-0.002348	1.349464	5.714042	0.053545	0.030100	103
SOUTH KOREA	-0.012929	1.282659	1.465753	0.012478	0.354200	118
SOUTH SUDAN						
SPAIN	0.003531	0.138499	0.040388	0.000469	0.833600	88
SRI LANKA						
SUDAN						

SURINAME						
SWAZILAND						
SWEDEN	-9.957738	0.301025	1.603376	0.018730	0.190600	86
SWITZERLAND	0.012052	0.728152	1.653038	0.013477	0.246400	123
SYRIA						
TAIWAN						
TAJIKISTAN	0.512971	-2.820127	0.466560	0.010734	0.533000	45
TANZANIA	0.016718	0.158489	0.086668	0.002217	0.570300	41
THAILAND	0.021911	-1.005758	2.298361	0.025453	0.199700	90
TOGO						
TONGA						
TRINIDAD & TOBAGO	-0.002589	0.069592	0.066949	0.002155	0.814900	33
TUNISIA	0.014906	-0.001544	0.000018	0.000000	0.996100	87
TURKEY	0.008307	-0.468666	0.699439	0.013025	0.441600	55
TURKMENISTAN						
TUVALU						
UGANDA	0.012033	0.429354	1.199418	0.020261	0.531200	60
UKRAINE	-0.019681	0.203950	0.116227	0.002274	0.694000	53
UNITED ARAB EMIRATES	0.000625	1.609387	3.964024	0.088160	0.115200	43

UNITED KINGDOM	0.009300	-0.098646	0.085597	0.000707	0.822100	123
UNITED STATES OF AMERICA	0.018484	0.053014	0.919060	0.023023	0.169000	41
URUGUAY	-0.080378	9.363674	1.927292	0.027173	0.256800	71
UZBEKISTAN						
VANUATU						
VENEZUELA	0.034699	-0.588785	4.992374	0.094209	0.001600	50
VIETNAM						
YEMEN						
ZAMBIA	0.020369	0.297462	1.964306	0.029778	0.113300	66
ZIMBABWE	0.029396	0.960082	2.630616	0.075962	0.128000	34

Attachment 9.1 - Descriptive Statistics for β

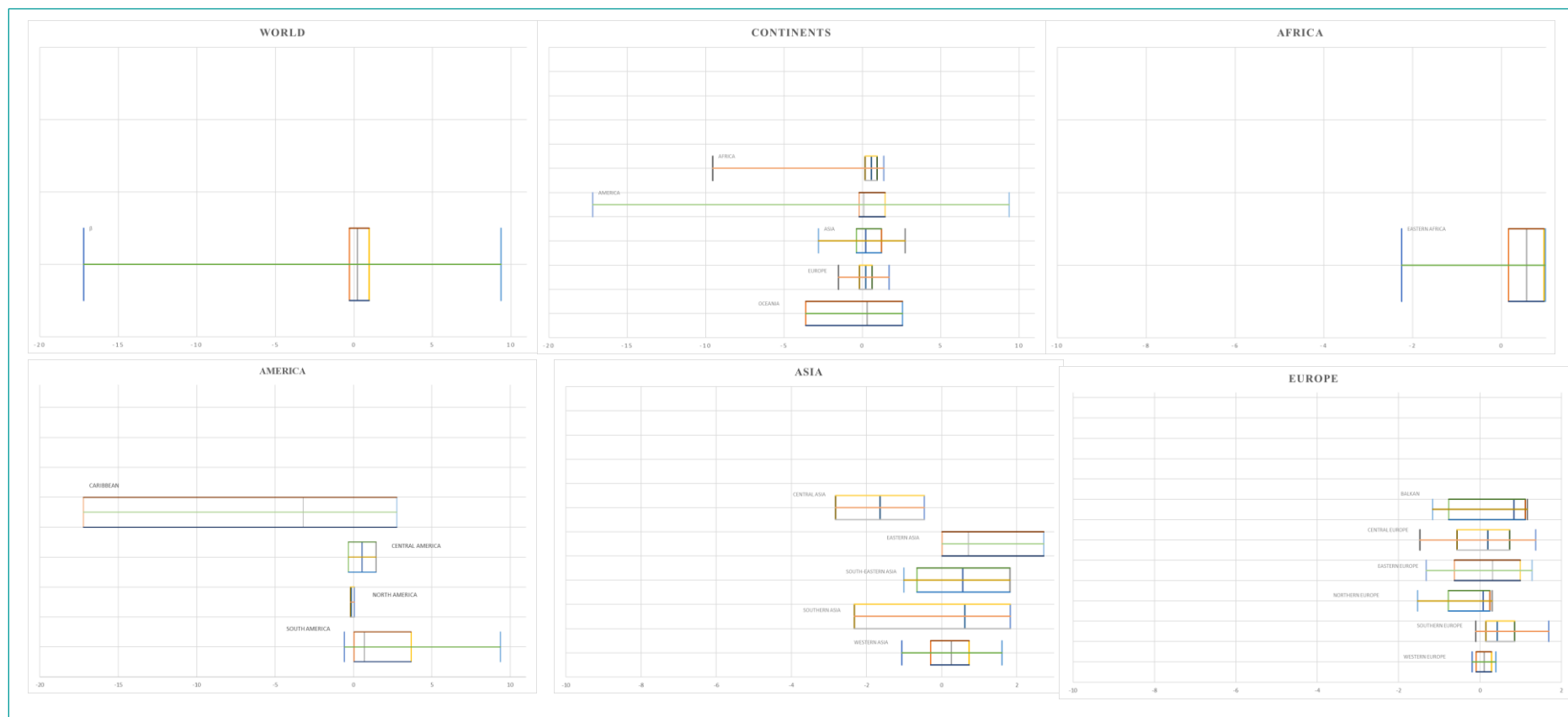
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.057577	0.219305	-17.218200	9.363674	26.581874	6.495842	2.548694	4426.59%
AFRICA	-0.302742	0.565680	-9.568511	1.349464	10.917975	7.843679	2.800657	-925.10%
EASTERN AFRICA	0.336073	0.702005	-2.248843	0.984849	3.233692	1.030610	1.015190	302.07%
MIDDLE AFRICA	-4.683466	-4.683466	-9.568511	0.201580	9.770091	47.727339	6.908498	-147.51%
NORTHERN AFRICA	0.377211	0.377211	-0.001544	0.755966	0.757510	0.286911	0.535640	142.00%
SOUTHERN AFRICA	1.349464	1.349464	1.349464	1.349464	0.000000			
WESTERN AFRICA								
AMERICA	-0.143162	0.069592	-17.218200	9.363674	26.581874	25.311392	5.031043	-3514.23%
CARIBBEAN	-5.209331	-3.192588	-17.218200	2.766051	19.984251	79.079265	8.892652	-170.71%
CENTRAL AMERICA	0.548339	0.540699	-0.324116	1.436076	1.760192	0.802717	0.895945	163.39%
NORTH AMERICA	-0.099282	-0.142800	-0.208061	0.053014	0.261075	0.018460	0.135869	-136.85%
SOUTH AMERICA	2.027717	0.705258	-0.588785	9.363674	9.952459	10.519676	3.243405	159.95%
ASIA	0.286627	0.212530	-2.820127	2.721014	5.541141	1.632832	1.277823	445.81%
CENTRAL ASIA	-1.639204	-1.639204	-2.820127	-0.458280	2.361847	2.789161	1.670078	-101.88%
EASTERN ASIA	1.041699	0.719139	0.007503	2.721014	2.713511	1.577620	1.256034	120.58%

SOUTH-EASTERN ASIA	0.576825	0.559202	-1.005758	1.822481	2.828239	1.586942	1.259739	218.39%
SOUTHERN ASIA	0.186858	0.620335	-2.321304	1.828067	4.149371	3.295011	1.815216	971.44%
WESTERN ASIA	0.264574	0.263789	-1.057601	1.609387	2.666988	0.585467	0.765158	289.20%
EUROPE	0.159102	0.209786	-1.538766	1.688899	3.227665	0.574075	0.757677	476.22%
BALKAN	0.303203	0.833246	-1.162270	1.161730	2.324000	1.054703	1.026987	338.71%
CENTRAL EUROPE	0.062831	0.189617	-1.477586	1.366338	2.843924	0.774281	0.879932	1400.47%
EASTERN EUROPE	0.130218	0.305818	-1.319663	1.274372	2.594035	0.726183	0.852164	654.41%
NORTHERN EUROPE	-0.202272	0.078320	-1.538766	0.301025	1.839791	0.572719	0.756782	-374.14%
SOUTHERN EUROPE	0.569179	0.419935	-0.101266	1.688899	1.790165	0.417843	0.646408	113.57%
WESTERN EUROPE	0.096962	0.103353	-0.196055	0.390807	0.586862	0.053776	0.231897	239.16%
OCEANIA	-0.123853	0.295814	-3.632274	2.545235	6.177509	6.889522	2.624790	-2119.28%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Significance Level		
								1%	5%	10%
WORLD	-3.409837	24.296936	100	0.254869	-0.294018	0.219305	0.960082	12.00%	22.00%	28.00%
AFRICA	-3.218828	10.888029	14	0.748507	0.158489	0.565680	0.923803	7.14%	28.57%	42.86%
EASTERN AFRICA	-2.518719	6.818925	9	0.338397	0.158489	0.565680	0.960082	11.11%	33.33%	44.44%
MIDDLE AFRICA			2	4.885046				0.00%	0.00%	0.00%
NORTHERN AFRICA			2	0.378755				0.00%	0.00%	50.00%
SOUTHERN AFRICA			1					0.00%	100.00%	100.00%
WESTERN AFRICA										
AMERICA	-2.083594	7.944558	19	1.154200	-0.208061	0.069592	1.436076	15.79%	15.79%	21.05%
CARIBBEAN	-1.023258	0.157439	4	4.446326	-17.218200	-3.192588	2.766051	0.00%	0.00%	25.00%
CENTRAL AMERICA	0.014669	-5.380720	4	0.447972	-0.324116	0.540699	1.436076	0.00%	0.00%	0.00%
NORTH AMERICA	1.293452		3	0.078444	-0.208061	-0.142800	0.053014	0.00%	0.00%	0.00%
SOUTH AMERICA	2.032987	4.333570	8	1.146717	0.035855	0.705258	3.679520	37.50%	37.50%	37.50%
ASIA	-0.520035	0.658756	25	0.255565	-0.379866	0.212530	1.207618	16.00%	28.00%	32.00%
CENTRAL ASIA			2	1.180924	-2.820127	-1.639204	-0.458280	0.00%	0.00%	0.00%
EASTERN ASIA	0.991819	-0.486496	4	0.628017	0.007503	0.719139	2.721014	25.00%	50.00%	50.00%

SOUTH-EASTERN ASIA	-0.173953	-2.249540	5	0.563372	-0.653605	0.559202	1.816066	40.00%	40.00%	40.00%
SOUTHERN ASIA	-1.171733	1.123430	4	0.907608	-2.321304	0.620335	1.828067	25.00%	50.00%	50.00%
WESTERN ASIA	0.018881	0.154228	10	0.241964	-0.294018	0.263789	0.734815	0.00%	10.00%	20.00%
EUROPE	-0.402467	0.227312	38	0.122911	-0.196055	0.209786	0.616882	7.89%	18.42%	21.05%
BALKAN	-0.863325	-1.487890	5	0.459283	-0.772632	0.833246	1.114016	0.00%	20.00%	20.00%
CENTRAL EUROPE	-0.383106	0.220599	8	0.311103	-0.567146	0.189617	0.728152	12.50%	12.50%	25.00%
EASTERN EUROPE	-0.425846	-0.308361	8	0.301285	-0.627479	0.305818	0.991696	0.00%	25.00%	25.00%
NORTHERN EUROPE	-2.094733	4.507040	5	0.338443	-0.782285	0.078320	0.237446	0.00%	20.00%	20.00%
SOUTHERN EUROPE	1.114237	1.082674	6	0.263895	0.138499	0.419935	0.849069	33.33%	33.33%	33.33%
WESTERN EUROPE	-0.018243	-1.962598	6	0.094672	-0.098646	0.103353	0.278962	0.00%	0.00%	0.00%
OCEANIA	-0.844624	0.801559	4	1.312395	-3.632274	0.295814	2.545235	0.00%	25.00%	50.00%

Attachment 9.2 – Box Plot of β



Attachment 9.3 - Descriptive Statistics for R-Squared

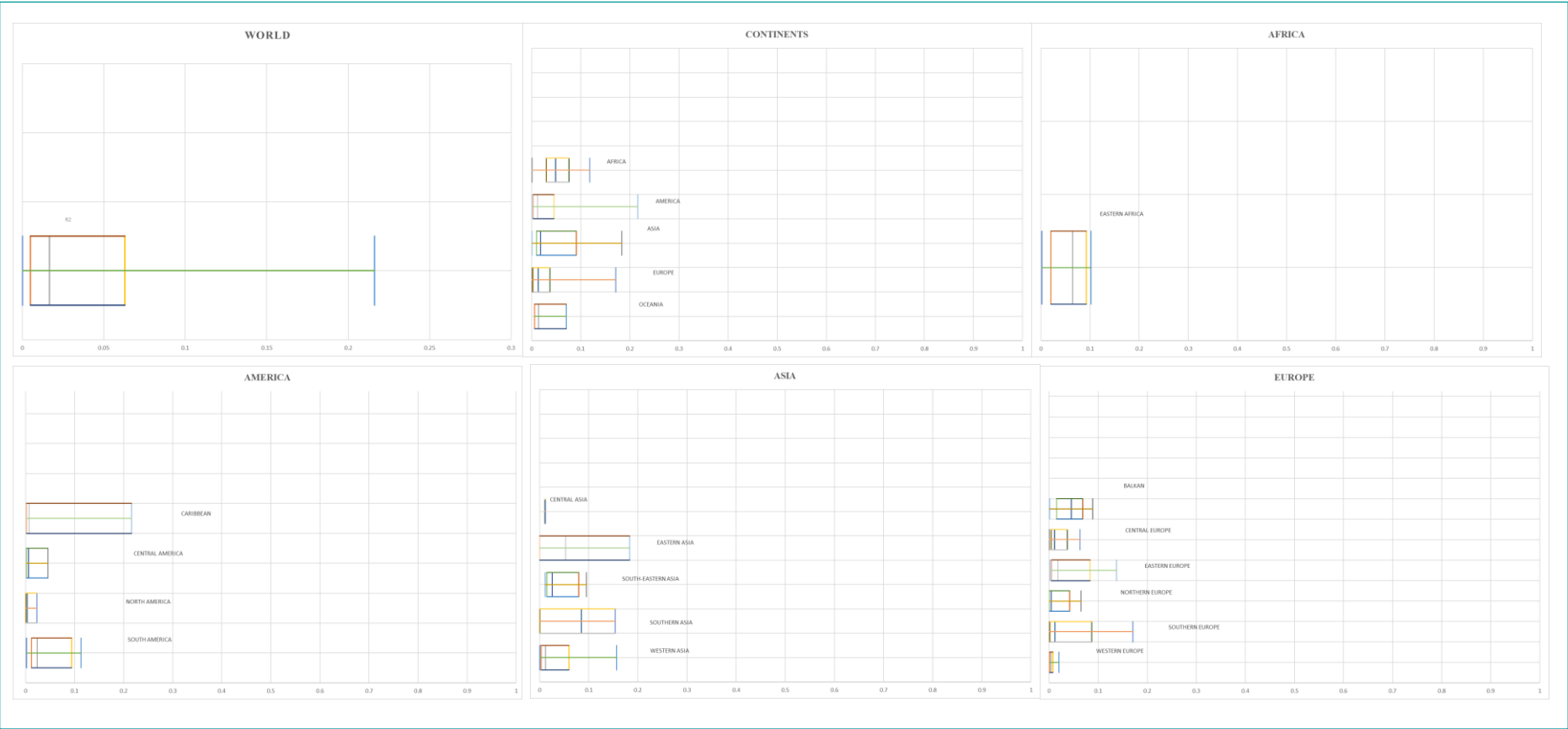
	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.038242	0.016703	0.000000	0.216103	0.216103	0.002257	0.047513	124.24%
AFRICA	0.052720	0.048682	0.000000	0.117699	0.117699	0.001293	0.035959	68.21%
EASTERN AFRICA	0.055008	0.055390	0.002217	0.102248	0.100031	0.001142	0.033799	61.44%
MIDDLE AFRICA	0.079392	0.079392	0.041085	0.117699	0.076614	0.002935	0.054174	68.24%
NORTHERN AFRICA	0.015335	0.015335	0.000000	0.030669	0.030669	0.000470	0.021686	141.42%
SOUTHERN AFRICA	0.053545	0.053545	0.053545	0.053545	0.000000			
WESTERN AFRICA								
AMERICA	0.035903	0.012029	0.000406	0.216103	0.215697	0.003008	0.054849	152.77%
CARIBBEAN	0.058303	0.007478	0.002155	0.216103	0.213948	0.011074	0.105232	180.49%
CENTRAL AMERICA	0.014984	0.006227	0.002068	0.045414	0.043346	0.000416	0.020408	136.20%
NORTH AMERICA	0.008868	0.003174	0.000406	0.023023	0.022617	0.000152	0.012337	139.12%
SOUTH AMERICA	0.045300	0.024123	0.002039	0.112989	0.110950	0.001817	0.042628	94.10%
ASIA	0.049079	0.017735	0.000221	0.183123	0.182902	0.003387	0.058198	118.58%
CENTRAL ASIA	0.011374	0.011374	0.010734	0.012013	0.001279	0.000001	0.000904	7.95%
EASTERN ASIA	0.072413	0.053154	0.000221	0.183123	0.182902	0.007173	0.084694	116.96%

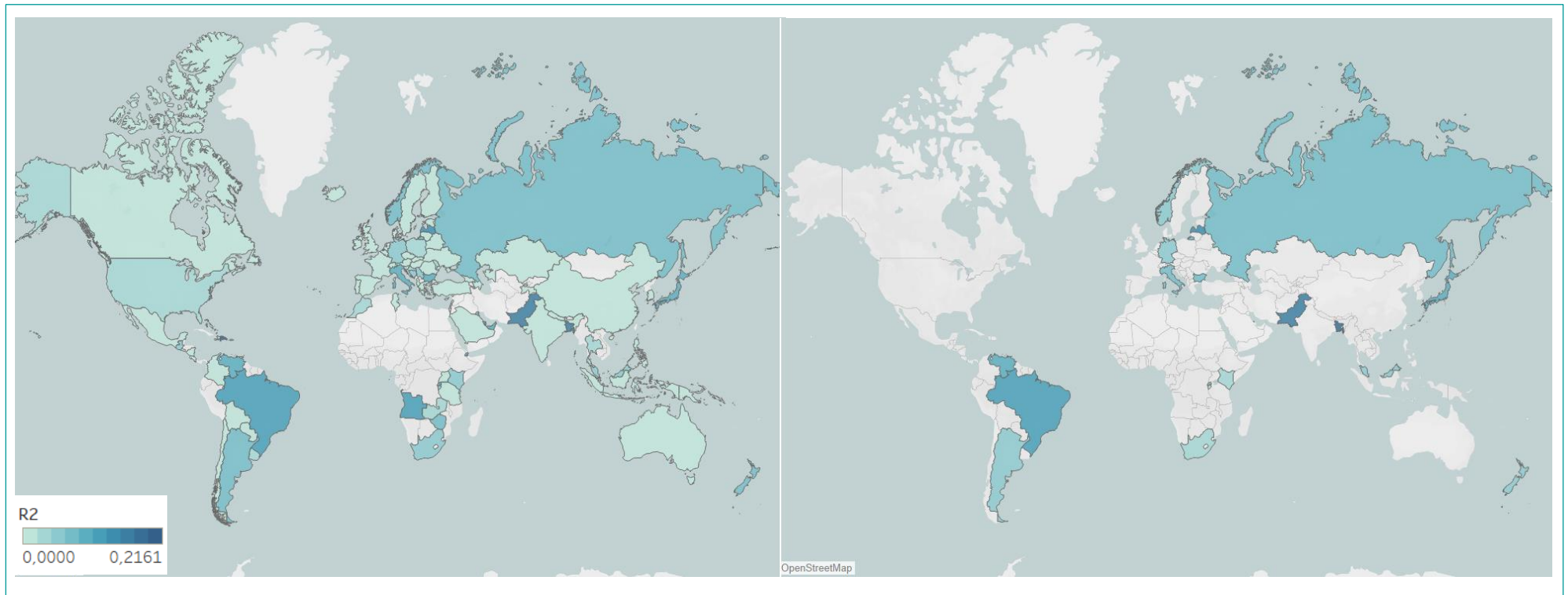
SOUTH-EASTERN ASIA	0.042939	0.025453	0.011678	0.095158	0.083480	0.001276	0.035717	83.18%
SOUTHERN ASIA	0.081018	0.084785	0.000413	0.154087	0.153674	0.006952	0.083379	102.91%
WESTERN ASIA	0.037581	0.012238	0.000888	0.156701	0.155813	0.002577	0.050768	135.09%
EUROPE	0.028235	0.013274	0.000023	0.170902	0.170879	0.001573	0.039656	140.45%
BALKAN	0.042689	0.045194	0.000792	0.089142	0.088350	0.001027	0.032047	75.07%
CENTRAL EUROPE	0.018817	0.010944	0.000231	0.062958	0.062727	0.000443	0.021042	111.82%
EASTERN EUROPE	0.037578	0.017842	0.002274	0.136980	0.134706	0.002268	0.047623	126.73%
NORTHERN EUROPE	0.017693	0.004241	0.000073	0.065302	0.065229	0.000767	0.027695	156.53%
SOUTHERN EUROPE	0.047307	0.012123	0.000469	0.170902	0.170433	0.004719	0.068699	145.22%
WESTERN EUROPE	0.006001	0.003968	0.000023	0.019674	0.019651	0.000056	0.007492	124.86%
OCEANIA	0.026017	0.014166	0.005472	0.070263	0.064791	0.000893	0.029879	114.84%

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile
WORLD	1.670580	2.402293	100	0.004751	0.004940	0.016703	0.062958
AFRICA	0.277485	-0.722357	14	0.009611	0.029778	0.048682	0.075962
EASTERN AFRICA	-0.144153	-1.116799	9	0.011266	0.020261	0.064324	0.092144
MIDDLE AFRICA			2	0.038307			
NORTHERN AFRICA			2	0.015335			
SOUTHERN AFRICA			1				
WESTERN AFRICA							
AMERICA	2.353837	5.981608	19	0.012583	0.003174	0.012029	0.045414
CARIBBEAN	1.996311	3.987903	4	0.052616	0.002155	0.007478	0.216103
CENTRAL AMERICA	1.928864	3.766587	4	0.010204	0.002068	0.006227	0.045414
NORTH AMERICA	1.634473		3	0.007123	0.000406	0.003174	0.023023
SOUTH AMERICA	0.726680	-1.409067	8	0.015071	0.012029	0.024123	0.094209
ASIA	1.183596	0.053913	25	0.011640	0.009509	0.017735	0.090995
CENTRAL ASIA			2	0.000639	0.010734	0.011374	0.012013
EASTERN ASIA	0.850717	-1.158429	4	0.042347	0.000221	0.053154	0.183123

SOUTH-EASTERN ASIA	0.922012	-1.014571	5	0.015973	0.014784	0.025453	0.079837
SOUTHERN ASIA	-0.036612	-5.781781	4	0.041689	0.000413	0.084785	0.154087
WESTERN ASIA	1.739765	2.706853	10	0.016054	0.003042	0.012238	0.059951
EUROPE	2.096852	4.454763	38	0.006433	0.002274	0.013274	0.036981
BALKAN	0.315181	1.201139	5	0.014332	0.015454	0.045194	0.068671
CENTRAL EUROPE	1.632309	2.267419	8	0.007439	0.004013	0.010944	0.036981
EASTERN EUROPE	1.704150	2.131430	8	0.016837	0.005019	0.017842	0.083459
NORTHERN EUROPE	1.855260	3.393672	5	0.012385	0.000096	0.004241	0.042016
SOUTHERN EUROPE	1.537075	1.547855	6	0.028046	0.001628	0.012123	0.086598
WESTERN EUROPE	1.474044	2.125346	6	0.003059	0.000707	0.003968	0.007665
OCEANIA	1.849489	3.502648	4	0.014939	0.005472	0.014166	0.070263

Attachment 9.4 – Box Plot of R-Squared





Attachment 10 – Regression: Real Stock Return vs. Macroeconomic Variables, 1989.Q1 -2019.Q4 (Eq. 8)

Country	α	β	λ	δ	θ_1	θ_2	θ_3	F	R ²
AFGHANISTAN	-0.138484	7.555135	3.892184	2.213431				1.890427	0.361890
ALBANIA	-0.078997	3.066862	-0.362267	-0.330543		-3.297543	1.140758	0.896863	0.152092
ALGERIA	0.012273	-0.329321	-3.893570	1.231628	-1.094972	1.502877		0.385923	0.084154
ANGOLA	0.439084	12.762050	-22.359760	-20.625790	-10.574120	-44.183730	38.634190	3.687814	0.479696
ANGUILLA	-0.890052	10.429180	7.996309	-3.953050	-0.446136	-0.623465		0.143612	0.040527
ANTIGUA & BARBUDA	1.638346	-32.652480	-38.054700	-2.423359	-5.714465	10.468490		0.817065	0.076958
ARGENTINA	0.122514	-0.243128	-1.434099	8.901715	0.126889	0.641778	-1.997413	1.193049	0.704675
ARMENIA	0.014395	0.120897	-0.208979	-0.013694	-0.735641	0.854171		0.327817	0.092923
ARUBA	0.214536	-5.864727	0.046333	-2.582766	0.226432	-0.438656		1.128182	0.196953
AUSTRALIA	0.032924	0.021565	-2.526060	1.049877	-0.439359	-0.059591	-0.531897	1.147035	0.056466
AUSTRIA	0.002208	-0.762499	-1.727440	4.129947	0.862000	-1.163267	-0.208158	1.826659	0.120492
AZERBAIJAN	-0.118336	1.614501	0.951773	0.659343	0.149456	-1.382423	1.336585	2.468076	0.260673
BAHAMAS	-0.457289	35.894710	25.683510	-23.137730	3.880258	-19.203490	-0.473240	1.088702	0.228942
BAHRAIN	-0.103192	3.849508	4.881665	0.437345	1.025945	0.028227	-0.603088	1.493041	0.345102
BANGLADESH	0.081551	0.606887	2.556751	-1.865232	0.719655	-6.781950	3.961723	1.236467	0.291863
BARBADOS	-0.137654	4.159846	3.440868	1.720145		0.117898		2.897048	0.471291
BELARUS	0.107484	-0.188450	-1.094822	-0.274482	-0.061280	0.953908	-1.197549	2.105166	0.227050
BELGIUM	0.014458	-1.760451	-8.213043	10.206820	0.096903	-1.103394	1.101680	4.580104	0.350158

BELIZE	-0.017789	0.347540	0.073771	0.947639	-0.262732	0.859559		3.847198	0.270032
BENIN	-0.035337	0.898358	0.012834	0.521327	1.477233	-1.518126		59.204060	0.925005
BERMUDA	-0.471838	7.823801	-85.179940	-10.682580		-121.119300		8.196565	0.386693
BHUTAN	-0.010845	-0.178580	-4.121473	1.101497		-0.125089		0.952347	0.257228
BOLIVIA	0.040947	-0.079821	-2.047475	-0.518324	0.285810	-0.266361	0.058547	1.246321	0.109202
BOSNIA & HERZEGOVINA	-0.086848	2.640249	6.644723	-0.201038	-2.710317	7.138595	-3.263555	0.908438	0.198561
BOTSWANA	-0.070862	-0.499167	3.866340	0.159191	0.086684	-0.473940		0.990557	0.120939
BRAZIL	-0.001135	-0.017220	-0.150612	0.854146	0.502342	-2.293046	2.734322	4.859299	0.316375
BRUNEI	-0.073890	23.176960	21.911950	0.074062	-0.040327			7.170955	0.781920
BULGARIA	-0.078764	0.887488	3.065811	1.933808	1.732757	-1.364401	0.584622	3.188708	0.244870
BURKINA FASO	0.090512	-2.730130	-3.658860	1.088663	-0.276259	0.507283		1.110954	0.119317
BURUNDI	-0.008690	0.016701	-0.208711	0.606802	-0.643999	-0.032092	1.450479	0.664414	0.086688
CAMBODIA	5.708140	-91.191480	-85.460620	-64.743990	2.734456	-0.723531		4.033086	0.691415
CAMEROON	-0.171606	7.434020	10.752130	-0.220755	1.327877	0.137030		0.272413	0.119878
CANADA	0.017841	-0.075411	-0.858141	1.618548	0.004438	-1.317803	0.412147	1.167834	0.056964
CAPE VERDE	-0.004248	0.620983	1.321017	-0.177381	0.339872	1.400493		0.770948	0.092098
CAYMAN ISLANDS	2.153511	-56.881490	-49.045470	-3.823944	6.791034	0.016902		2.872216	0.524873
CENTRAL AFRICAN REPUBLIC	0.033521	-0.152794	-1.356395	0.018061	-0.436577	0.286810		0.179231	0.016032
CHAD	0.210879	-1.466311	9.364321	-0.016539	-0.029472	1.567549		0.430204	0.069051

CHILE	0.052759	0.232883	-3.686428	1.775190	0.515230	-1.453085	-0.940882	5.558085	0.365069
CHINA	-0.139473	0.047952	2.088731	4.937175	0.896912	0.749259	-0.034871	2.339209	0.187049
COLOMBIA	-0.010589	1.448186	-3.469297	2.841972	0.309273	1.620589	-3.676082	1.372620	0.139033
COMOROS	-0.010429	0.395654	-0.431877	0.155869	-0.114188	0.202731		23.035260	0.672852
COSTA RICA	0.279541	0.962352	-11.006360	-3.959801	2.364397	-10.981550	7.704283	1.637543	0.134916
CROATIA	-0.005890	-0.369600	0.508470	0.323541	0.312348	1.826583	-2.469077	1.129837	0.200687
CUBA	0.202720	-7.297742	-14.668940	0.294569				0.669743	0.133866
CURACAO	5.628275	-6.014650	-20.003800	-0.462951				1.905992	0.164698
CYPRUS	0.145566	0.036045	-5.290663	1.914724	-0.041629	-0.049691	-0.159995	0.210095	0.201351
CZECH REPUBLIC	-0.032007	0.058720	1.232123	5.117223	0.496111	2.050807	-2.172922	3.377413	0.243375
DEMOCRATIC REPUBLIC OF CONGO	-3.457936	7.525296	19.150900	33.866300	-17.379940	18.106920		2.195948	0.354417
DENMARK	0.037961	-0.493911	0.129285	-0.328425		-0.758556	0.461049	1.329954	0.058001
DJIBOUTI	3.059464	30.646590	10.486250	-51.035420	11.074160	-11.162940	0.958956	5.182351	0.968842
DOMINICA	0.016886	-0.212935	-2.724300	-0.020164	0.237864	-0.880503		1.616856	0.128151
DOMINICAN REPUBLIC	0.050249	-0.934129	3.389512	-0.421183	-0.529171	0.549965	2.096684	0.503200	0.065607
EAST TIMOR	-0.278723	34.104570	32.459680	-0.016020		0.193138		1.526158	0.504322
ECUADOR	0.163927	-3.032560	-4.781049	-3.570439	-4.213708	4.394936		3.053050	0.266571
EGYPT	0.043780	-0.560800	0.701324	-0.241471	1.208303	-0.064552		1.076160	0.076453
EL SALVADOR	0.122587	-2.335109	-3.114847	0.179860	0.679710	2.030568	-2.817384	0.780116	0.169096

EQUATORIAL GUINEA	-0.468732	19.264580	19.359550	0.045459	0.126501	-0.165262		9.074584	0.957782
ERITREA	0.008519	0.272553	-0.527639	-2.681788	-0.166951	0.663308		0.647252	0.048859
ESTONIA	0.022557	0.388436	-3.168663	1.850826	1.850172	7.378971	-9.642779	4.229662	0.315733
ETHIOPIA	0.048986	-6.811044	-7.278997	0.168094				0.269609	0.032602
FIJI	-0.027336	2.343167	2.363381	-0.147231				1.941598	0.660049
FINLAND	0.004049	-0.089033	0.993199	4.335228	0.258257	-0.965305	0.537856	2.397868	0.114742
FRANCE	0.001182	-0.455216	1.298367	6.615116	0.742374	-2.516029	0.609087	2.869157	0.134266
GABON	-0.042173	1.478825	1.121251	0.176842	-0.461600	0.031831		0.399202	0.039923
GAMBIA	-2.503416	10.196620	119.595000	2.998096				0.262522	0.089623
GEORGIA	0.222545	-3.176357	-1.048668	0.625245	-1.608212	1.131835	0.035205	1.825174	0.238320
GERMANY	0.049151	-0.578116	-3.937175	1.380044		-0.094020	-0.787866	0.921500	0.047204
GHANA	0.096311	-0.016943	-2.071163	-0.843610	0.539116	-1.173947		0.622558	0.140769
GREECE	-0.034389	0.951719	-1.386907	2.958239		1.943330	-1.371114	3.890125	0.176102
GRENADA	0.030031	-0.769804	-0.821997	0.017961	-0.610866	1.225479		1.792845	0.140144
GUATEMALA	0.354361	-5.793294	-7.570802	-1.778039	0.141476	0.299304	-0.113701	4.008279	0.324778
GUINEA	0.220488	-4.170444	-4.598834	-0.318122	-0.033306			1.139893	0.086751
GUINEA-BISSAU	0.207659	-3.564524	-3.561214	-0.391275	-0.207483	0.300647		0.535887	0.061343
GUYANA	-2.823187	230.048400	137.423200	32.582940	68.000520	-251.172000		0.611271	0.051753
HAITI	-0.064334	-0.306183	7.688198	6.377868	2.657734	-6.511175	9.971400	0.439920	0.061903

HONDURAS	0.011354	0.255282	-2.949588	1.233950	0.286913	0.158216		1.167655	0.083597
HONG KONG	-0.035759	-0.359420	-0.020039	2.432752	0.317158	5.394298	-3.310675	7.571137	0.290403
HUNGARY	0.011489	0.082842	0.355554	2.013052		-0.221833	-0.189244	0.550489	0.030329
ICELAND	0.118596	-0.949141	-4.405049	-0.245472	0.753019	-1.426840	1.423958	12.755550	0.573140
INDIA	-0.020885	0.833766	-1.149208	0.338008	-0.080291	-0.024756	-0.545148	0.439724	0.089018
INDONESIA	0.075433	-1.987018	-2.388031	5.832860	0.554653	-24.608350	23.812120	1.569169	0.232958
IRAN	0.004075	-0.313124	0.121296	0.052082	-0.070430	1.798208		16.075930	0.708943
IRAQ	0.044362	-1.893061	-0.904003	0.150430	-1.386247	1.665112		0.597890	0.230144
IRELAND	0.019795	-2.217954	0.917390	0.414469	0.086046	-0.105140	0.091523	1.867413	0.131501
ISRAEL	0.023278	0.003814	-1.134681	0.768880	0.411289	-0.379925	-1.865971	1.393098	0.250568
ITALY	0.002292	-0.608198	-1.962724	3.497629	0.888709	-0.445478	0.979489	2.630169	0.164761
IVORY COAST	-0.144965	3.375897	1.960956	0.348501	-0.414608	0.823480		5.383910	0.627210
JAMAICA	-0.001850	0.139210	0.437496	-0.324682	-0.828836	2.442719		4.122736	0.227490
JAPAN	0.010183	-6.230241	-3.980060	2.012086	-0.387742	1.106241	0.111657	2.455974	0.220809
JORDAN	0.026372	-1.183869	-0.388865	0.472758	0.331841	-0.834379		0.994571	0.088844
KAZAKHSTAN	-0.092176	1.140331	2.955242	1.693815	-0.842260	2.387091	-1.706239	4.009500	0.358754
KENYA	-0.004060	-0.315603	-1.045462	-0.344850	0.754463	0.434812	0.813125	2.893412	0.338012
KIRIBATI	0.019863	-0.198743	-1.036778	0.034864				1.529264	0.160481
KOSOVO	-0.002173	1.064828	-0.948979	0.327836				2.447001	0.220179

KUWAIT	-0.031492	3.071469	0.737285	0.073057	1.489564	35.167890	-38.119150	6.053660	0.420773
KYRGYZSTAN	0.062795	1.181903	5.181601	0.054732	-4.486960	3.028016		1.644261	0.263324
LAOS	-0.557764	-0.639565	-3.403528	9.538309		-0.175121		6.648317	0.515441
LATVIA	0.100709	-8.212726	-12.699210	-3.126599	-0.228109	2.038833	-4.028361	3.859925	0.461718
LEBANON	-0.063034	0.359888	4.467212	-1.239382	-0.535394	0.658327	3.277585	1.424336	0.187635
LESOTHO	0.009300	-0.236512	0.752552	0.181750	0.189308	0.231421		0.630556	0.058220
LIBERIA	-0.243177	7.396021	7.761265	3.997844	-0.710997	2.545762		0.947162	0.208297
LIBYA	0.034082	-0.462437	-1.153424	-0.005886	2.355505	-1.654357		2.910194	0.209213
LITHUANIA	0.061022	-0.296496	-6.036227	1.551363	-0.099314	-1.110463	0.765081	2.011304	0.191347
LUXEMBOURG	-0.039528	-0.609757	4.521688	2.175214	0.581873	0.444621	-0.402411	3.248998	0.242179
MACAU	-0.007346	-0.256003	2.721710	0.503509	-0.320966	0.166534		0.246982	0.036072
MADAGASCAR	-0.798533	19.646280	-15.807990	-8.731664	2.304400	-10.587690		0.729584	0.076560
MALAWI	0.001956	0.079461	-1.901931	2.869345	-0.377154	0.064240		2.987258	0.427529
MALAYSIA	0.151376	-4.641656	-6.577482	0.402452	0.550411	-0.200081	0.619882	3.182614	0.276366
MALDIVES	0.009643	-0.369707	-0.748114	0.182542				0.217691	0.013153
MALI	-0.020550	2.963122	2.492179	-0.835562	0.557472	-0.368977		0.577433	0.161410
MALTA	-0.001647	-1.724471	-2.885818	1.376139	0.240348	0.836052	-0.922597	5.989271	0.486039
MARSHALL ISLANDS	-1.046471	104.718500	92.235810	-2.059392				2.087802	0.135386
MAURITANIA	0.046537	-0.941006	-1.782107	0.403394		-0.310015		0.478276	0.091479

MAURITIUS	0.011976	-1.196714	-1.105811	0.044947	0.194316	0.557375		1.237021	0.204906
MEXICO	0.025489	-0.189489	-1.120190	3.362680	-0.560643	2.193031	-1.215558	3.171482	0.218650
MICRONESIA	-0.001058	1.549660	-0.920894	0.272088				0.969220	0.076704
MOLDOVA	0.077531	-0.658665	-2.160078	-0.050869	-1.727435	1.299363	1.008044	0.452943	0.083064
MONGOLIA	0.978867	-7.410309	-13.822610	-2.082021	0.556538	2.702047		1.710262	0.191943
MONTENEGRO	0.012978	-0.514988	-2.225877	-0.057230				0.956663	0.096083
MONTSERRAT	0.080701	-1.002134	-3.194238	0.115536	0.264144	-1.071455		3.529382	0.854700
MOROCCO	0.016189	-0.853793	-1.989978	0.839748	8.732034	-7.881424	-1.897541	1.631837	0.192771
MOZAMBIQUE	-0.239822	-0.781970	-3.675561	13.179480	14.091050	-13.319570		1.184901	0.179942
MYANMAR	-0.215574	-2.272907	3.069683	5.527164	-1.549939	0.843545		0.954306	0.302541
NAMIBIA	0.140152	-1.601878	-2.632837	0.926508	-0.149405	-0.245833		2.621822	0.466365
NEPAL	0.132869	-0.034349	-0.003954	-1.476240	0.410626	-0.622627	0.400706	0.150597	0.075908
NETHERLANDS	-0.000504	-1.548950	-0.646732	7.051714	-0.296326	-0.455272	1.128103	3.675542	0.202225
NEW ZEALAND	0.029077	-0.396393	-2.057617	1.331485	-0.105529	0.342097	0.322983	5.749731	0.323933
NICARAGUA	0.071344	3.665765	-4.975697	0.797386	3.182519	-2.391973	-1.149106	1.709165	0.139990
NIGER	0.006024	0.225819	-1.422066	-0.100464	-0.476515	0.833818		1.835441	0.294356
NIGERIA	-0.007329	-0.016371	-0.615903	-0.041069	-0.434611	0.546091		0.255139	0.028813
NORTH MACEDONIA	0.030380	-0.207818	-1.119750	0.196808	-0.720260	1.208547		0.222887	0.030858
NORWAY	0.065695	-3.261541	-1.012959	2.794548	-0.023060	5.647272	-6.908409	3.527945	0.351811

OMAN	-0.012724	-0.025803	3.141601	-0.115264	0.475900	-0.600985		1.018064	0.087628
PAKISTAN	-0.127063	-0.412784	2.394620	2.244482	1.813931	-9.826215	11.547450	2.250657	0.262192
PALAU	0.046821	4.200400	1.164402	0.447506				9.745128	0.455129
PALESTINE	0.018519	-0.506281	-1.202748	-0.252817				0.342775	0.035425
PANAMA	-0.006223	2.230164	1.034224	-0.091936				0.967280	0.182484
PAPUA NEW GUINEA	-0.439916	3.960514	4.057796	0.190578			3.282762	0.432794	0.032219
PARAGUAY	-0.093525	-7.704594	32.473290	1.106459	-6.859906	14.713050	1.494057	8.358293	0.633606
PERU	0.130505	-0.181339	-14.325320	-1.907201	-1.358281	1.703762		0.000259	0.363821
PHILIPPINES	-0.050782	0.216609	0.486338	4.851179	-0.705700	-0.842644	1.260898	2.550601	0.116551
POLAND	-0.030022	0.503996	-4.483199	1.470808	0.054495	-10.471220	11.184400	2.189784	0.136664
PORTUGAL	0.011090	-0.373631	-3.531928	3.660712	-0.063718	-0.607119	0.321546	1.547711	0.102854
PUERTO RICO	-0.149408	5.884107	5.945611	5.054629				0.911514	0.048199
QATAR	-0.052664	2.086784	-2.399513	-0.109293	0.002736	-0.088464	0.215585	0.723464	0.110338
REPUBLIC OF CONGO	-0.764217	25.131600	17.235210	-0.147460	50.226820	-55.257790		0.590083	0.113694
ROMANIA	0.059718	-0.693752	-4.462541	0.949034	-0.794481	-1.788739	2.280750	0.420726	0.049963
RUSSIAN FEDERATION	-0.026275	-0.581821	0.971264	-0.429136	-4.090341	5.393636	-0.227505	2.849109	0.213431
RWANDA	-0.365949	3.394556	1.974217	1.749111	-0.825644	1.223216	0.428009	5.370490	0.641598
SAINT KITTS AND NEVIS	0.069355	-1.621510	-1.576910	-0.304116	-0.050310	-0.021022		0.764717	0.148066
SAINT LUCIA	0.334304	-14.938770	-11.974400	-0.833843	1.070922	-0.501043		1.265751	0.387584

SAINT VINCENT AND THE GRENADINES	0.018009	-1.094969	-3.630851	0.133942	-0.363400	-0.019313		1.214810	0.216358
SAMOA	0.003898	-0.228183	-1.107206	0.527390	0.203104	0.320108		0.933730	0.078243
SAO TOME AND PRINCIPE	-0.002969	0.319561	-0.660142	0.059929	-0.357222	0.010583	0.534822	1.101032	0.118803
SAUDI ARABIA	0.050465	-2.421676	-4.995123	0.512368	-0.063378	1.181463	-1.375163	1.657576	0.207433
SENEGAL	0.221515	-4.888319	-6.668303	0.052956	2.170535	-3.147781		2.294769	0.276653
SERBIA	0.031112	-0.824137	-1.358817	0.841320	0.792865	-1.348627	1.740557	0.934841	0.115391
SEYCHELLES	0.844099	-10.712410	-13.299510	0.423020	-6.672557	2.688637	-4.958922	5.638353	0.556141
SIERRA LEONE	0.209743	-3.359973	-4.553588	0.646243	-1.981461	-3.648415		1.523994	0.160016
SINGAPORE	-0.030109	-0.559610	-3.255250	1.851220	0.649104	0.994034	0.550104	7.872004	0.289355
SLOVAKIA	-0.004188	-0.737820	-2.753249	1.171339	-0.045273	1.158540	-0.624979	1.383003	0.152824
SLOVENIA	-0.031353	0.649224	0.293816	2.656759	0.888224	1.471282	-1.542765	1.957697	0.199948
SOLOMON ISLANDS	-0.038496	0.424742	-7.560775	1.253377	11.935350	5.351010	-27.965660	0.679406	0.070191
SOMALIA	0.139131	-0.478412	4.023612	0.619872		6.840530		2.333850	0.098960
SOUTH AFRICA	0.058581	-0.136350	-4.017963	2.878610	0.103665	0.268209	0.239085	3.370542	0.174003
SOUTH KOREA	-0.020454	-2.029058	1.070940	5.476447	-0.274935	1.201219	1.481791	3.576394	0.232087
SOUTH SUDAN	5.051757	23.717650	3.563528	-69.036820	13.991030	-29.840070		0.964292	0.231562
SPAIN	0.001969	0.055747	0.186126	3.699051	0.036045	-3.440180	2.655041	2.197934	0.140014
SRI LANKA	-0.037371	0.534695	0.010312	0.606306	0.828436	-0.637529		3.730119	0.554243
SUDAN	-0.331111	19.772660	18.767210	3.762694	2.575055	-0.811010		0.304309	0.057370

SURINAME	1.741211	-23.461650	-26.755030	-3.357171	1.547695	-0.437603		0.830379	0.075281
SWAZILAND	-0.198152	0.442970	16.721820	-9.410232	0.395834	3.599542		0.633352	0.054443
SWEDEN	-9.994856	-0.573433	6.116365	4.565162	-0.134870	-1.336962	1.579548	4.225457	0.242952
SWITZERLAND	-0.017201	0.281757	0.257757	5.408485	-1.515406	1.939383	0.974564	3.229818	0.143146
SYRIA	0.435456	-3.696921	-4.996641	-2.184408	-1.107846			0.696565	0.080097
TAIWAN	0.020218	-0.392819	-1.114492	2.399499	-0.608620	-0.637760		1.640335	0.065508
TAJIKISTAN	0.250766	1.162907	2.443209	-1.775442	23.958820	-24.371420		0.241752	0.028484
TANZANIA	0.003235	0.256299	-0.150353	0.367068	-0.819424	1.748677	-0.562389	0.301961	0.056953
THAILAND	0.089161	-7.418376	8.444581	-3.650165		-12.125530	24.605060	3.070656	0.884748
TOGO	-0.112695	0.357794	-0.010353	1.587456	-0.546357	1.055849		48.109870	0.909280
TONGA	0.032897	-0.063500	1.741886	-0.645859	-0.511460	2.270902		2.381466	0.177967
TRINIDAD & TOBAGO	0.035135	-2.558466	-3.515198	-0.205205	0.392206	0.403052	-0.883653	1.689375	0.280501
TUNISIA	0.011808	-0.178587	0.859608	-0.215054	1.206573	-7.402123	5.468957	0.504382	0.104260
TURKEY	0.108428	-0.002500	-3.746255	0.606460	0.270265	-2.066447	0.150012	2.242038	0.222527
TURKMENISTAN	0.022692	-0.719780	-7.475601	5.583081		-4.823628		3.074522	0.577427
TUVALU	-0.118068	10.539050	9.442116	-0.000497				39.695300	0.626485
UGANDA	0.396048	-1.899770	-4.835368	-2.728124	-0.166319	-1.236216	1.630874	3.567170	0.424638
UKRAINE	-0.067508	0.389997	8.592090	0.669810		-1.894415	1.693215	0.433407	0.000167
UNITED ARAB EMIRATES	0.043339	-2.662220	-1.199655	-0.678109	1.376296	0.568755	0.136641	1.666592	0.217384

UNITED KINGDOM	-0.003197	0.045922	-0.030671	2.485044		-0.032160	-0.167343	0.885731	0.036471
UNITED STATES OF AMERICA	0.013531	-0.148737	-1.339813	3.851225	-0.102484	-1.819731		5.852262	0.281417
URUGUAY	0.716190	-5.262090	-22.369910	-8.426711	8.603457	-14.185380	-1.536477	2.050061	0.197436
UZBEKISTAN	0.017512	-0.138466	-0.987563	-0.011477		-0.003582		1.941706	0.492606
VANUATU	-0.111722	4.506028	5.279594	0.368090	0.266148	-0.597315		0.456138	0.131979
VENEZUELA	-0.036312	0.920356	-0.060639	0.022052	-0.653185	6.760636	-6.506426	1.695892	0.191355
VIETNAM	0.074489	-0.801788	-0.333628	-0.570292		-0.407125		2.401396	0.193639
YEMEN	-0.375737	1.949808	1.966351	-0.256812		0.371661		1.293415	0.139175
ZAMBIA	0.186516	-1.059200	-2.615097	-0.835845	-0.069568	0.089396	-0.307398	3.508832	0.350574
ZIMBABWE	0.361392	-2.064894	-2.231187	0.856469	1.205911	-2.474305	1.710416	1.344475	0.259661

Country	p-value of β	p-value of λ	p-value of δ	p-value of θ_1	p-value of θ_2	p-value of θ_3	N
AFGHANISTAN	0.034400	0.310900	0.284300				14
ALBANIA	0.053300	0.894400	0.815500		0.100300	0.274400	31
ALGERIA	0.899300	0.413600	0.716900	0.240100	0.078900		27
ANGOLA	0.647200	0.434700	0.075600	0.099900	0.170300	0.159500	31
ANGUILLA	0.497100	0.666300	0.363900	0.452600	0.850500		23
ANTIGUA & BARBUDA	0.329300	0.284400	0.441600	0.319600	0.355200		55
ARGENTINA	0.664700	0.592200	0.043800	0.951200	0.757100	0.374900	10
ARMENIA	0.516400	0.574200	0.589300	0.203100	0.184000		22
ARUBA	0.374900	0.995400	0.143500	0.855400	0.805800		29
AUSTRALIA	0.917700	0.137700	0.325600	0.055900	0.948300	0.434000	122
AUSTRIA	0.282300	0.569700	0.100500	0.207800	0.698800	0.941100	87
AZERBAIJAN	0.112400	0.481600	0.389100	0.744500	0.000800	0.000000	49
BAHAMAS	0.212500	0.548500	0.162000	0.160900	0.260800	0.979900	29
BAHRAIN	0.010600	0.175000	0.831000	0.053200	0.985300	0.648600	24
BANGLADESH	0.655000	0.546500	0.561700	0.447800	0.307500	0.664600	25
BARBADOS	0.317200	0.417300	0.085200		0.441900		18
BELARUS	0.533100	0.003800	0.231600	0.892800	0.221900	0.116000	50
BELGIUM	0.060100	0.001600	0.006500	0.906500	0.461800	0.397200	58

BELIZE	0.515900	0.911600	0.015000	0.235600	0.246100		58
BENIN	0.003700	0.905000	0.277000	0.001000	0.010100		30
BERMUDA	0.004200	0.238200	0.053600		0.005300		57
BHUTAN	0.938100	0.327400	0.277800				16
BOLIVIA	0.812100	0.021300	0.477600	0.448200	0.637400	0.868500	68
BOSNIA & HERZEGOVINA	0.058700	0.039200	0.364400	0.474100	0.394800	0.470800	29
BOTSWANA	0.453200	0.122600	0.328700	0.686300	0.240400		42
BRAZIL	0.958000	0.918900	0.551100	0.001200	0.000100	0.001800	70
BRUNEI	0.026600	0.034800	0.045100	0.768800			13
BULGARIA	0.431400	0.089900	0.097900	0.035500	0.172600	0.085300	66
BURKINA FASO	0.528900	0.410000	0.196300	0.483900	0.302600		47
BURUNDI	0.961200	0.726100	0.322000	0.750800	0.992700	0.380200	49
CAMBODIA	0.488600	0.551800	0.019900	0.006200	0.348600		15
CAMEROON	0.822200	0.777300	0.449600	0.653900	0.977000		16
CANADA	0.736500	0.567800	0.312800	0.994200	0.201800	0.577200	123
CAPE VERDE	0.546900	0.432400	0.719400	0.349300	0.188000		44
CAYMAN ISLANDS	0.050800	0.112700	0.140700	0.046600	0.957100		19
CENTRAL AFRICAN REPUBLIC	0.896700	0.226500	0.758800	0.718000	0.779400		61
CHAD	0.935500	0.710900	0.987400	0.620600	0.346400		35

CHILE	0.785400	0.000300	0.031100	0.210400	0.098000	0.270000	65
CHINA	0.970800	0.394500	0.043500	0.013800	0.422100	0.544300	68
COLOMBIA	0.137000	0.156800	0.214000	0.280100	0.569300	0.142600	58
COMOROS	0.119400	0.123300	0.498400	0.054100	0.027100		62
COSTA RICA	0.752800	0.380100	0.103700	0.253700	0.248000	0.338900	70
CROATIA	0.753100	0.802000	0.870100	0.585100	0.523200	0.386000	34
CUBA	0.175200	0.078800	0.799700				17
CURACAO	0.003100	0.109500	0.847400				33
CYPRUS	0.998700	0.864600	0.908300	0.984100	0.995600	0.945300	12
CZECH REPUBLIC	0.951100	0.634000	0.000000	0.359700	0.303400	0.177300	70
DEMOCRATIC REPUBLIC OF CONGO	0.188600	0.272300	0.004000	0.092500	0.173700		26
DENMARK	0.095900	0.943000	0.804700		0.130400	0.015700	114
DJIBOUTI	0.103500	0.282300	0.148700	0.154100	0.178700	0.259000	8
DOMINICA	0.822200	0.049500	0.889000	0.366700	0.290500		61
DOMINICAN REPUBLIC	0.566600	0.350500	0.471100	0.683200	0.856800	0.477200	50
EAST TIMOR	0.638400	0.647200	0.596600		0.122600		11
ECUADOR	0.620400	0.364600	0.164200	0.018800	0.102200		48
EGYPT	0.158100	0.569900	0.190900	0.105100	0.933400		71
EL SALVADOR	0.376800	0.231800	0.720600	0.313300	0.352700	0.204200	30

EQUATORIAL GUINEA	0.008500	0.008800	0.067800	0.018100	0.014500		8
ERITREA	0.789800	0.768300	0.260100	0.813000	0.598600		69
ESTONIA	0.673900	0.027300	0.032300	0.018800	0.007400	0.001800	62
ETHIOPIA	0.800600	0.776400	0.851900				28
FIJI	0.142700	0.140800	0.133300				7
FINLAND	0.742300	0.736800	0.007100	0.512500	0.341200	0.587100	118
FRANCE	0.099600	0.688100	0.000400	0.094100	0.015600	0.548800	118
GABON	0.264000	0.577500	0.363900	0.677100	0.984400		54
GAMBIA	0.305900	0.165100	0.828200				12
GEORGIA	0.195100	0.732000	0.089800	0.029100	0.406700	0.960300	42
GERMANY	0.376100	0.145400	0.365100		0.506200	0.428900	99
GHANA	0.985400	0.216700	0.287600	0.551300	0.260800		25
GREECE	0.087600	0.159700	0.002900		0.047800	0.184000	97
GRENADA	0.604100	0.570500	0.737000	0.016800	0.109700		61
GUATEMALA	0.284100	0.439600	0.014600	0.852300	0.918400	0.114500	57
GUINEA	0.345700	0.258100	0.499600	0.706600			53
GUINEA-BISSAU	0.387900	0.467800	0.167800	0.767100	0.696300		47
GUYANA	0.352200	0.425200	0.394600	0.342500	0.335100		62
HAITI	0.968600	0.371000	0.170200	0.775400	0.656400	0.304100	47

HONDURAS	0.575300	0.473000	0.092500	0.702600	0.890800		70
HONG KONG	0.289300	0.988900	0.000100	0.139800	0.609600	0.760200	118
HUNGARY	0.856000	0.828900	0.372800		0.774300	0.829800	94
ICELAND	0.173600	0.000100	0.679700	0.008800	0.000000	0.017000	64
INDIA	0.605000	0.522800	0.781100	0.945800	0.984400	0.712500	34
INDONESIA	0.170100	0.200200	0.589400	0.220900	0.147800	0.165700	38
IRAN	0.796400	0.948300	0.413300	0.877000	0.205800		39
IRAQ	0.658100	0.828200	0.160300	0.030800	0.010700		16
IRELAND	0.067200	0.594700	0.042000	0.310400	0.838400	0.667900	81
ISRAEL	0.997400	0.705800	0.632200	0.171900	0.569000	0.051600	32
ITALY	0.576200	0.120200	0.230800	0.522300	0.859300	0.424000	87
IVORY COAST	0.095400	0.128700	0.867200	0.792700	0.709100		22
JAMAICA	0.608900	0.435200	0.530800	0.000100	0.000000		76
JAPAN	0.084300	0.443200	0.076800	0.885100	0.843200	0.070700	59
JORDAN	0.347400	0.811000	0.548900	0.629000	0.472600		57
KAZAKHSTAN	0.012200	0.159400	0.012300	0.010100	0.000600	0.050300	50
KENYA	0.438700	0.555100	0.727400	0.313400	0.707300	0.217000	41
KIRIBATI	0.287900	0.000900	0.699500				28
KOSOVO	0.102000	0.277300	0.233700				30

KUWAIT	0.001400	0.411000	0.565600	0.000200	0.067000	0.044400	57
KYRGYZSTAN	0.279500	0.133300	0.933300	0.568200	0.694000		29
LAOS	0.022000	0.106400	0.000600		0.714500		30
LATVIA	0.057700	0.006300	0.099400	0.678300	0.038400	0.000100	34
LEBANON	0.929400	0.140600	0.319100	0.074500	0.455100	0.169300	44
LESOTHO	0.890000	0.687500	0.779200	0.129800	0.460100		57
LIBERIA	0.087000	0.116100	0.121800	0.734500	0.368100		24
LIBYA	0.258700	0.674400	0.250300	0.000100	0.000100		61
LITHUANIA	0.847800	0.024300	0.108300	0.854000	0.868000	0.908100	58
LUXEMBOURG	0.409300	0.010500	0.024900	0.031500	0.450000	0.161800	68
MACAU	0.959400	0.809200	0.283600	0.692400	0.931300		39
MADAGASCAR	0.040900	0.507200	0.152200	0.708300	0.214500		50
MALAWI	0.834200	0.022700	0.246600	0.292600	0.897100		26
MALAYSIA	0.130900	0.063700	0.162200	0.178600	0.670300	0.591100	57
MALDIVES	0.439200	0.422200	0.430200				53
MALI	0.665600	0.715600	0.519900	0.573500	0.752600		21
MALTA	0.006800	0.000100	0.146400	0.629500	0.358300	0.056800	45
MARSHALL ISLANDS	0.011500	0.021900	0.544100				44
MAURITANIA	0.090900	0.009000	0.403100		0.417100		24

MAURITIUS	0.411700	0.612500	0.805500	0.359300	0.282700		30
MEXICO	0.622700	0.391900	0.008100	0.070200	0.069400	0.306000	75
MICRONESIA	0.288000	0.569400	0.483500				39
MOLDOVA	0.156700	0.649800	0.754900	0.525300	0.632700	0.516700	37
MONGOLIA	0.152200	0.174800	0.046700	0.653100	0.093700		42
MONTENEGRO	0.511800	0.147800	0.139500				31
MONTSERRAT	0.776700	0.375400	0.767200	0.007300	0.217400		9
MOROCCO	0.475700	0.495900	0.064000	0.256900	0.413500	0.123800	48
MOZAMBIQUE	0.861900	0.680400	0.454000	0.016400	0.007300		33
MYANMAR	0.573400	0.690100	0.366100	0.086900	0.705900		17
NAMIBIA	0.022500	0.007700	0.079300	0.306300	0.456900		21
NEPAL	0.993300	0.999600	0.591900	0.286800	0.270400	0.825600	18
NETHERLANDS	0.004500	0.709100	0.000000	0.134500	0.718100	0.286000	94
NEW ZEALAND	0.231400	0.043400	0.145100	0.856200	0.012500	0.544300	79
NICARAGUA	0.305900	0.068400	0.230000	0.069100	0.607400	0.804500	70
NIGER	0.946300	0.677400	0.658300	0.323000	0.059500		28
NIGERIA	0.974200	0.726900	0.515500	0.271000	0.344500		49
NORTH MACEDONIA	0.848800	0.627300	0.441300	0.485800	0.391100		41
NORWAY	0.001500	0.731600	0.039300	0.427400	0.596000	0.509000	46

OMAN	0.983400	0.036000	0.734500	0.038400	0.380000		59
PAKISTAN	0.673400	0.299200	0.191400	0.283800	0.118000	0.097300	45
PALAU	0.666400	0.896400	0.197500				39
PALESTINE	0.500900	0.532500	0.296200				32
PANAMA	0.229500	0.646400	0.638300				17
PAPUA NEW GUINEA	0.116000	0.424800	0.935900			0.261200	57
PARAGUAY	0.277400	0.000800	0.005800	0.112100	0.046300	0.647900	36
PERU	0.835900	0.008900	0.150800	0.001900	0.001200		46
PHILIPPINES	0.643200	0.847400	0.000500	0.114400	0.297900	0.033300	123
POLAND	0.321100	0.065100	0.307600	0.917100	0.060600	0.047200	90
PORTUGAL	0.684900	0.008300	0.016700	0.858100	0.767300	0.851900	88
PUERTO RICO	0.435200	0.821700	0.577300				58
QATAR	0.320600	0.356500	0.701900	0.994700	0.813500	0.704400	42
REPUBLIC OF CONGO	0.518100	0.718000	0.901000	0.166900	0.158300		29
ROMANIA	0.505900	0.463600	0.631400	0.241000	0.011400	0.090900	55
RUSSIAN FEDERATION	0.363400	0.585800	0.216600	0.003000	0.001300	0.578900	70
RWANDA	0.000900	0.104400	0.031300	0.077300	0.292000	0.610200	25
SAINT KITTS AND NEVIS	0.182600	0.054300	0.078800	0.672300	0.913800		28
SAINT LUCIA	0.021600	0.105800	0.051900	0.452000	0.895400		16

SAINT VINCENT AND THE GRENADINES	0.554700	0.071600	0.710500	0.265700	0.954900		28
SAMOA	0.913200	0.510800	0.129100	0.613300	0.830800		61
SAO TOME AND PRINCIPE	0.429700	0.249200	0.880800	0.259300	0.968100	0.055300	56
SAUDI ARABIA	0.259200	0.061100	0.095300	0.953200	0.497800	0.371000	45
SENEGAL	0.314200	0.200500	0.948400	0.002200	0.001500		36
SERBIA	0.306400	0.291100	0.743800	0.420300	0.288300	0.193400	50
SEYCHELLES	0.000700	0.019800	0.286600	0.022400	0.358500	0.060100	34
SIERRA LEONE	0.150100	0.569900	0.330700	0.686800	0.275600		46
SINGAPORE	0.211200	0.050800	0.020900	0.047300	0.076800	0.543800	123
SLOVAKIA	0.222300	0.110200	0.028000	0.931800	0.713300	0.766100	53
SLOVENIA	0.757500	0.916700	0.192700	0.299100	0.421700	0.525100	54
SOLOMON ISLANDS	0.952300	0.559800	0.719000	0.085400	0.429000	0.082300	61
SOMALIA	0.214200	0.753100	0.785000		0.572900		90
SOUTH AFRICA	0.610300	0.000900	0.029500	0.823300	0.627400	0.769900	103
SOUTH KOREA	0.053700	0.773400	0.000300	0.458900	0.540600	0.584800	78
SOUTH SUDAN	0.532100	0.857400	0.417000	0.318700	0.182100		22
SPAIN	0.951800	0.875700	0.020400	0.655200	0.159700	0.212900	88
SRI LANKA	0.512000	0.993900	0.035600	0.078300	0.338800		21
SUDAN	0.317700	0.323600	0.236800	0.431500	0.719800		31

SURINAME	0.198100	0.165500	0.543600	0.549000	0.595000		57
SWAZILAND	0.895500	0.311700	0.299600	0.734400	0.151000		61
SWEDEN	0.473100	0.013800	0.000000	0.929100	0.419400	0.102700	86
SWITZERLAND	0.263800	0.828400	0.000200	0.012300	0.010900	0.307800	123
SYRIA	0.283700	0.172100	0.324500	0.097000			37
TAIWAN	0.493500	0.641200	0.006900	0.167700	0.667300		123
TAJKISTAN	0.832100	0.953700	0.120300	0.122800	0.124700		67
TANZANIA	0.200500	0.906500	0.794700	0.444600	0.364300	0.683700	37
THAILAND	0.086500	0.268200	0.150500		0.073000	0.082800	8
TOGO	0.142000	0.775400	0.159400	0.037900	0.007000		30
TONGA	0.963300	0.240200	0.354900	0.288700	0.026400		61
TRINIDAD & TOBAGO	0.008500	0.000500	0.388100	0.073700	0.419400	0.014000	33
TUNISIA	0.771000	0.704800	0.695300	0.011500	0.441300	0.594300	33
TURKEY	0.994200	0.007500	0.550000	0.550700	0.482900	0.962700	54
TURKMENISTAN	0.013200	0.123700	0.411900		0.297800		14
TUVALU	0.000500	0.001400	0.989700				75
UGANDA	0.000600	0.000100	0.004400	0.851400	0.406900	0.167900	36
UKRAINE	0.439700	0.000800	0.659500		0.119200	0.020000	37
UNITED ARAB EMIRATES	0.410900	0.826500	0.345900	0.087600	0.695200	0.941400	43

UNITED KINGDOM	0.808500	0.985000	0.073600		0.962200	0.714000	123
UNITED STATES OF AMERICA	0.608800	0.333100	0.004400	0.831800	0.034000		123
URUGUAY	0.267900	0.171100	0.108100	0.229200	0.200400	0.779500	57
UZBEKISTAN	0.346100	0.231200	0.012500		0.668900		13
VANUATU	0.454800	0.450700	0.542300	0.221100	0.321200		21
VENEZUELA	0.040200	0.941300	0.884100	0.342000	0.673600	0.689700	50
VIETNAM	0.296600	0.825500	0.003300		0.000900		45
YEMEN	0.017900	0.200000	0.356500		0.371100		37
ZAMBIA	0.000700	0.003700	0.156700	0.494200	0.820100	0.573400	46
ZIMBABWE	0.048300	0.084100	0.489500	0.560000	0.327300	0.028300	30

Country	α	β	λ	δ	θ_1	θ_2	θ_3	F	R ²
AFGHANISTAN	0.019244	-1.339480	-4.700946	1.522714				1.035509	0.237021
ALBANIA	0.049769	-1.120161	-3.758796	-0.032222		0.731730	-0.912464	0.591232	0.105743
ALGERIA	0.029256	-4.961259	-6.975562	1.668538	-1.283378	1.576952		0.564107	0.129261
ANGOLA	0.119691	0.639769	-1.417625	-1.294205	-2.255490	-3.116402	5.726637	0.991748	0.205540
ANGUILLA	-0.423027	45.345010	38.891120	-3.583111	0.012370	-5.150967		0.683368	0.167354
ANTIGUA & BARBUDA	-0.222649	2.407973	1.084242	-1.071024	-4.771926	10.157070		0.347432	0.034927
ARGENTINA	0.091978	0.272411	-1.710868	8.883684	-1.233603	2.268060	-3.258685	1.224282	0.710024
ARMENIA	0.028551	-0.077339	-0.485270	-0.019485	-0.626374	0.677369		0.317623	0.090295
ARUBA	0.085414	-2.162045	3.093813	-1.799352	0.135031	-0.589281		1.176501	0.203670
AUSTRALIA	0.032777	-0.701541	-2.529060	1.170016	-0.479462	-0.003565	-0.545821	1.240477	0.060786
AUSTRIA	-0.004193	-1.437535	-2.797367	4.385408	0.845981	-0.999554	-0.505624	1.723779	0.114483
AZERBAIJAN	0.046687	-0.133431	-0.961732	0.965419	0.065829	-1.314194	1.390341	2.264800	0.244452
BAHAMAS	-0.342358	54.227130	68.707840	-25.247000	3.750998	-14.998570	-1.682108	1.203817	0.247166
BAHRAIN	-0.004325	-4.442025	-5.707815	-0.132578	0.118753	2.581982	-1.700669	0.837472	0.238995
BANGLADESH	0.094604	2.337972	7.031527	-2.774841	0.733445	-3.045708	1.394363	1.847263	0.394664
BARBADOS	-0.004374	0.424272	-0.615739	1.913277		-0.080487		2.307640	0.415219
BELARUS	0.071679	0.842056	-0.785167	-0.271325	0.325830	0.749909	-1.550750	2.936439	0.290647
BELGIUM	0.003249	-1.867863	-8.573106	10.767790	0.399548	-0.876674	0.600527	3.704539	0.307740

BELIZE	-0.011671	0.339032	-0.067644	1.002353	-0.290741	0.934777		3.930206	0.274260
BENIN	-0.005983	0.066283	-0.019019	0.295335	1.158882	-0.414649		45.930920	0.905383
BERMUDA	0.363568	7.401600	40.788310	-8.695495		5.425408		16.525310	0.559700
BHUTAN	-0.119529	-6.816742	-0.912652	1.686450		-0.098248		0.940441	0.701591
BOLIVIA	0.037755	-0.086211	-1.994647	-0.439306	0.307998	-0.298596	0.069072	1.244266	0.109042
BOSNIA & HERZEGOVINA	-0.030377	-0.846233	1.667354	-0.297432	-3.977003	9.066758	-3.743600	0.436080	0.106290
BOTSWANA	-0.071677	-1.413785	2.290732	0.189430	0.087415	-0.372219		0.998025	0.121740
BRAZIL	-0.013479	-1.055866	0.335042	0.509036	0.388147	-2.091539	2.777756	6.117523	0.368137
BRUNEI	-0.000260	-0.997163	-3.559911	0.120912	-0.061641			6.272625	0.758239
BULGARIA	-0.034983	-3.378118	-0.383187	2.033272	1.070964	-0.330659	0.632817	5.254387	0.352146
BURKINA FASO	-0.054676	-1.421743	-2.175877	1.414321	-0.019523	0.143855		1.306130	0.140352
BURUNDI	-0.013649	0.025997	0.132512	0.531995	-1.094626	1.920464		0.510225	0.056006
CAMBODIA	3.729876	-2.507064	6.377593	-55.132390	2.828317	-0.568170		3.742757	0.675252
CAMEROON	0.028066	-0.133041	2.498280	-0.228917	1.587033	-0.266582		0.254626	0.112935
CANADA	0.013614	-1.994504	-2.278201	2.345407	-0.490561	-0.980548	1.037053	2.151915	0.100158
CAPE VERDE	-0.002797	4.629746	4.260155	-0.372519	0.437522	1.975176		4.452406	0.369420
CAYMAN ISLANDS	0.253094	-5.707478	4.013746	-4.666533	7.793781	0.358291		2.382118	0.478134
CENTRAL AFRICAN REPUBLIC	0.025176	0.552217	-0.733889	0.036259	-0.545505	0.403739		0.222264	0.019806
CHAD	0.199877	-9.808204	4.046586	-0.701926	-0.055641	2.975686		0.829773	0.125159

CHILE	0.060782	-0.504508	-3.954870	1.611123	0.389474	-1.218800	-0.910822	5.627581	0.367954
CHINA	-0.135706	-0.085157	1.952031	4.919238	0.883281	0.726820	-0.033204	2.267681	0.184850
COLOMBIA	0.072733	-0.485814	-3.970929	1.771234	0.345788	0.766614	-2.732817	0.991675	0.104478
COMOROS	-0.003227	0.268399	-0.516060	0.242016	-0.100049	0.101851		27.266490	0.708838
COSTA RICA	0.303089	2.668911	-9.822057	-3.603767	2.441748	-11.172720	8.017857	1.643561	0.135344
CROATIA	-0.015001	0.997472	1.972566	0.375594	0.488446	1.838926	-2.826530	1.290063	0.222806
CUBA	0.191980	9.670164	-12.564880	-1.430086				2.403355	0.375327
CURACAO	0.000219	-1.415789	-9.776855	1.801936				0.730304	0.072569
CYPRUS	0.031128	4.081720	3.779307	5.635305	0.296592	0.850096	-0.424485	0.276079	0.248851
CZECH REPUBLIC	-0.028497	-1.685622	-0.151649	5.326333	0.557105	2.050313	-2.114220	3.846578	0.268118
DEMOCRATIC REPUBLIC OF CONGO	-2.950746	-13.917740	11.398240	27.598950	-18.675310	24.930590		2.294120	0.364486
DENMARK	0.032775	-1.914984	-2.155469	-0.100259		-0.858453	0.453791	1.712500	0.073458
DJIBOUTI	0.289146	0.366113	-6.644933	-3.797467	6.392003	-6.284363	0.066269	0.720211	0.812075
DOMINICA	0.011383	0.483123	-2.125139	0.010630	0.240010	-0.900615		1.708071	0.134408
DOMINICAN REPUBLIC	-0.017633	-0.823919	4.294704	-0.321967	-0.397775	0.073843	2.403727	0.522374	0.067938
EAST TIMOR	-0.007946	0.119344	-2.242190	-0.013722		0.192528		1.280859	0.506097
ECUADOR	0.043820	0.026134	-2.709643	-2.999726	-4.157532	4.219442		2.902003	0.261395
EGYPT	0.000002	-0.951319	0.585188	-0.275389	1.244207	-0.236446		1.134531	0.080267
EL SALVADOR	0.048551	-0.724718	-1.672659	0.204521	0.749263	1.770679	-3.269649	0.648273	0.144652

EQUATORIAL GUINEA	0.002440	0.403247	0.320239	0.048900	0.370051	-0.458598		6.865851	0.944948
ERITREA	0.009263	0.987680	-0.540131	-2.439683	-0.212196	0.720992		0.787009	0.058789
ESTONIA	0.038904	-5.707169	-5.480600	1.855596	0.861476	8.864871	-9.850880	10.063900	0.523328
ETHIOPIA	-0.042757	0.253033	-0.438509	0.228519				0.272995	0.032998
FIJI	0.142201	-2.200549	-3.592019	-3.177992				309.099400	0.998923
FINLAND	-0.003838	-1.537416	-0.132508	4.439389	0.171308	-0.741207	0.429812	2.580348	0.122405
FRANCE	-0.006798	-0.931117	-0.850628	7.018632	0.549135	-2.010303	0.498455	2.544114	0.120894
GABON	0.004272	0.769265	0.245485	0.122215	-0.374039	-0.065294		0.365288	0.036656
GAMBIA	-1.686000	-16.648690	82.781710	12.521820				0.395924	0.129277
GEORGIA	-0.007352	1.835024	4.158132	0.372330	-1.321999	1.238970	0.300632	1.632330	0.218645
GERMANY	0.047672	-2.321674	-6.282838	2.579097		-3.381422	2.010954	1.104778	0.056641
GHANA	0.094900	-0.019459	-2.102417	-0.845791	0.533004	-1.172678		0.622481	0.140754
GREECE	0.001808	0.323567	-1.031694	2.936232		1.062590	-0.195642	3.086472	0.144997
GRENADA	0.010952	-0.799834	-0.571950	0.009973	-0.597446	1.170815		1.902864	0.147476
GUATEMALA	0.018033	2.449421	1.456548	-1.901779	0.229466	0.500908	-0.105400	3.940973	0.321075
GUINEA	-0.008936	0.167047	-0.114395	-0.205908	-0.111487			0.371890	0.030679
GUINEA-BISSAU	0.029196	-1.318125	-1.091223	-0.211810	-0.234229	0.258758		0.503272	0.059186
GUYANA	3.466520	51.370670	39.502520	4.773192	38.727410	-138.077600		0.372788	0.032212
HAITI	0.199384	-21.392650	-3.202542	5.729238	1.673383	-6.004836	7.298471	1.678286	0.205212

HONDURAS	0.024808	0.988957	-2.183052	1.268179	0.243127	0.290232		1.173426	0.083976
HONG KONG	-0.040300	-2.425279	-0.171794	2.419687	0.249353	2.107917	-0.059639	8.577100	0.318728
HUNGARY	0.008290	1.299153	1.002032	1.678194		-0.005295	-0.532959	0.873620	0.047808
ICELAND	0.079736	-1.473589	-6.180718	-0.139277	0.581622	-1.430751	1.376613	12.448320	0.567165
INDIA	0.033624	-0.933688	-2.146376	0.481778	0.223172	-0.452984	0.100727	0.586174	0.115249
INDONESIA	-0.089200	-1.526156	-2.086462	9.471370	0.511545	-21.047800	20.628660	1.458151	0.220104
IRAN	-0.029595	-0.255895	0.075082	0.043153	0.097142	1.554250		18.597530	0.738070
IRAQ	-0.048626	-1.732085	-1.123853	0.149616	-1.070644	1.196951		1.038753	0.341835
IRELAND	-0.006075	-0.815235	0.465503	0.556647	0.094665	-0.431139	0.127280	0.572699	0.044375
ISRAEL	0.024998	-1.004669	-2.238873	0.721536	0.385936	-0.488203	-1.727785	1.109587	0.217158
ITALY	0.002355	-1.401345	-3.991959	4.084479	0.538983	0.028749	0.813611	2.653586	0.165985
IVORY COAST	0.054615	0.009201	-0.267119	-0.549181	-0.461482	0.817200		4.723621	0.596144
JAMAICA	0.027094	-0.994135	-0.476916	-0.119618	-0.718804	2.121730		5.484240	0.281471
JAPAN	-0.009601	1.737691	3.839943	2.615301	1.534081	-0.978655	0.120480	2.197887	0.202299
JORDAN	-0.012056	-1.008602	0.018852	0.001212	0.533058	-1.175457		1.550932	0.134269
KAZAKHSTAN	0.002818	-0.312941	1.031492	1.584690	-0.613235	2.146145	-1.675232	3.127228	0.303794
KENYA	-0.030702	-0.237539	-0.807350	0.117570	0.445170	0.499196	1.028516	2.882677	0.343885
KIRIBATI	0.017700	0.496088	-0.486170	0.023015				1.956574	0.203318
KOSOVO	0.013448	0.351372	-1.664333	0.158496				1.660475	0.166150

KUWAIT	0.022282	-1.588577	-2.074372	0.119825	1.139258	39.838910	-41.898520	4.092788	0.329370
KYRGYZSTAN	0.277446	-2.349409	-2.745845	-0.589906	-7.713599	5.525530		2.970798	0.452121
LAOS	-0.546268	-0.518071	-3.506367	7.972465		-0.375748		5.816496	0.482037
LATVIA	0.083942	0.103330	-4.406649	-3.209064	-1.003544	2.159787	-3.164734	3.414662	0.431435
LEBANON	-0.049537	0.280068	4.377461	-1.252750	-0.547255	0.678378	3.326101	1.443579	0.189689
LESOTHO	-0.021623	3.740615	2.645328	0.049599	0.163105	0.154841		1.394841	0.120298
LIBERIA	-0.018994	1.257679	1.189564	3.210122	-1.053756	2.881814		0.727840	0.176325
LIBYA	0.001798	-0.222923	-0.797101	-0.003647	2.330486	-1.650073		2.918198	0.209668
LITHUANIA	0.074386	-2.835399	-8.157807	1.841865	-0.239170	-2.573831	2.227980	2.406575	0.220654
LUXEMBOURG	-0.080915	4.624834	9.468532	2.460173	0.636781	0.319145	-0.456932	4.714313	0.316801
MACAU	-0.006114	-1.039576	2.722374	0.518860	-0.325030	0.164000		0.250559	0.036575
MADAGASCAR	1.108353	-3.366354	-36.028330	-6.531772	2.208091	-9.016073		0.584193	0.062253
MALAWI	0.036223	-0.339864	-2.259770	2.504387	-0.184131	-0.088317		3.252785	0.448488
MALAYSIA	0.004374	-2.327153	-4.022730	0.519006	0.676219	0.354779	0.155551	3.481892	0.294695
MALDIVES	-0.009834	-0.441348	-0.805314	0.351979				0.590431	0.035589
MALI	0.077722	-0.396829	-0.991728	-0.669794	0.618907	-0.411050		0.550978	0.155162
MALTA	-0.023754	-0.281601	-1.381422	1.922878	0.116058	1.464849	-1.177297	5.027023	0.442506
MARSHALL ISLANDS	-0.000942	6.919145	3.844343	-6.391717				0.549117	0.040532
MAURITANIA	0.009547	0.109115	-0.506504	0.472708		-0.321469		0.390722	0.084194

MAURITIUS	-0.018303	0.738551	1.215287	0.124559	0.288036	0.505578		1.454304	0.240210
MEXICO	0.032050	-2.178443	-2.670653	3.378487	-0.622139	2.149881	-1.271157	4.604032	0.288883
MICRONESIA	0.003724	0.957286	-1.468408	0.163682				0.838543	0.067056
MOLDOVA	0.018405	-1.647315	-3.890387	-0.107774	-1.579342	-0.086895	2.578987	0.572921	0.102804
MONGOLIA	-0.029704	6.181621	11.087090	-2.015233	0.562778	3.432320		1.641138	0.189921
MONTENEGRO	0.002528	-1.354440	-2.335208	-0.064541				1.256115	0.122475
MONTSERRAT	0.018378	-1.214763	-4.466438	-0.070440	0.274597	-1.342831		8.539018	0.934347
MOROCCO	-0.006526	-0.566533	-2.104973	0.889458	10.913610	-10.236360	-2.094088	1.517294	0.189253
MOZAMBIQUE	-0.480889	7.581120	-1.059705	17.171400	11.794120	-9.288697		1.529667	0.227302
MYANMAR	-0.286124	3.266969	7.829855	4.277311	-1.002403	-0.785998		1.245401	0.383743
NAMIBIA	0.023325	0.220095	-1.158682	1.310055	-0.090484	-0.170384		1.497850	0.348511
NEPAL	0.115710	1.617709	2.442816	-2.563624	0.182997	-0.333283	1.137511	0.288752	0.136070
NETHERLANDS	-0.017974	-0.907106	-0.958045	6.822535	-0.199308	-0.511959	0.764659	2.764522	0.160127
NEW ZEALAND	0.008928	1.923983	-1.570853	0.894815	0.007228	0.356845	0.035319	6.379022	0.350258
NICARAGUA	0.182133	-2.391099	-8.108288	0.523967	3.227421	-2.619057	-1.149464	1.542895	0.128117
NIGER	0.014106	0.142715	-1.513704	-0.093368	-0.442346	0.791248		1.844427	0.295372
NIGERIA	0.003656	-0.526380	-1.218310	-0.002805	-0.535492	0.638284		0.541719	0.060583
NORTH MACEDONIA	0.010297	-2.958356	-2.158273	0.109013	-0.532775	1.066310		0.924879	0.116706
NORWAY	0.004149	-0.279930	2.297207	2.847007	0.013471	-3.582211	2.134149	1.438778	0.181234

OMAN	-0.010270	-1.628657	2.333219	-0.133688	0.370338	-0.327726		1.237906	0.104571
PAKISTAN	-0.039434	-2.367401	-0.445438	1.141375	-0.792682	-4.100416	7.095493	3.380936	0.348038
PALAU	0.085196	0.375839	-2.716829	0.405081				9.691402	0.453758
PALESTINE	0.006998	1.002196	0.749711	-0.204146				0.506224	0.051448
PANAMA	0.011820	0.334788	-0.453261	-0.170218				0.387218	0.082028
PAPUA NEW GUINEA	-0.197716	8.381329	7.094527	-0.494225			3.589637	1.389707	0.101887
PARAGUAY	-0.378572	7.115251	32.554660	0.795135	-0.061503	3.963567	-0.053556	6.882184	0.595919
PERU	0.112324	-2.554410	-13.166770	-1.155123	-0.655281	0.875802		0.000044	0.430143
PHILIPPINES	-0.052776	-1.827130	1.151568	4.877996	-0.575470	-1.392701	1.890584	3.986521	0.170950
POLAND	-0.015674	0.179164	-2.963300	1.255595	-0.086435	-10.640750	11.878890	1.852383	0.118094
PORTUGAL	0.023705	-3.020392	-7.221019	4.078690	-0.275147	-0.690770	0.422144	2.282465	0.144620
PUERTO RICO	0.131655	2.517445	-3.555826	7.131468				0.236609	0.013216
QATAR	0.023949	-0.237789	-3.903419	0.026092	0.020708	-0.164458	0.301322	0.468582	0.074355
REPUBLIC OF CONGO	0.334359	9.853166	-0.000079	-0.670227	47.376080	-52.029700		0.664609	0.126241
ROMANIA	0.018537	-3.882100	-8.163442	1.410012	-0.447305	-1.062453	1.080036	1.519140	0.159588
RUSSIAN FEDERATION	0.006406	-4.328545	-0.187089	0.154234	-1.298701	2.189701	-0.635527	8.717148	0.457582
RWANDA	0.047677	-0.783221	-3.248821	-0.612213	-0.561949	-0.133198	0.740275	1.474126	0.329478
SAINT KITTS AND NEVIS	0.012165	-0.436687	-0.910527	-0.210537	-0.092714	-0.072241		0.455568	0.093824
SAINT LUCIA	-0.044633	-3.195864	-2.551179	-0.228183	1.347342	-0.987434		0.830067	0.293303

SAINT VINCENT AND THE GRENADINES	-0.009062	-0.172570	-2.879594	0.165099	-0.328957	-0.101630		1.156495	0.208134
SAMOA	0.012493	-1.283777	-2.367297	0.409402	0.184973	0.262663		1.367238	0.110553
SAO TOME AND PRINCIPE	0.015732	0.729589	-0.507480	0.026356	-0.411290	0.018537	0.613669	1.262118	0.133858
SAUDI ARABIA	0.019694	-2.219717	-3.747558	0.630488	-0.077018	1.796783	-1.724676	1.723873	0.213954
SENEGAL	0.007203	0.099030	-1.550170	0.456686	2.391186	-3.286556		2.010146	0.250950
SERBIA	-0.039589	-0.839015	-1.060280	2.377969	0.819424	-1.142344	1.230779	0.767157	0.096694
SEYCHELLES	0.201455	-2.080077	-9.122749	-0.257446	-1.463059	-4.097380	-0.317654	1.168125	0.206087
SIERRA LEONE	-0.190976	-13.839120	0.742117	-0.765424	-2.081425	-2.393144		2.333254	0.230257
SINGAPORE	-0.034848	-0.591101	-3.512242	1.770562	0.788107	0.762162	0.360358	7.630609	0.282993
SLOVAKIA	-0.006521	0.372577	-2.407786	0.992045	0.069233	0.762751	-0.580523	1.156567	0.131082
SLOVENIA	-0.013832	-1.934284	-2.642713	3.373475	0.429976	1.891749	-1.566501	2.267191	0.224463
SOLOMON ISLANDS	-0.006048	-3.985508	-10.222180	0.672287	10.122550	6.137157	-26.395530	0.726815	0.074723
SOMALIA	-0.132171	-0.687274	16.802980	1.499430		18.811160		2.173812	0.092804
SOUTH AFRICA	0.050369	-1.671624	-4.334781	3.464961	0.076801	0.462546	-0.044376	3.989733	0.199589
SOUTH KOREA	-0.079252	1.186406	1.950830	5.617071	-0.211868	0.994387	1.186973	2.668745	0.184025
SOUTH SUDAN	6.150826	-5.654655	-10.751480	-92.292540	9.010397	-24.635910		0.890078	0.228807
SPAIN	0.000662	0.351605	0.658247	3.542714	0.040714	-3.409898	2.662815	2.209835	0.140666
SRI LANKA	0.004474	0.077975	-0.485992	0.617911	0.765769	-0.643057		3.595881	0.545171
SUDAN	-0.695002	2.200926	5.724904	8.323348	1.347994	0.961614		0.457287	0.086982

SURINAME	0.215376	-16.627840	-14.620820	-0.017371	-0.992159	0.740814		2.797971	0.215262
SWAZILAND	-0.201509	2.410525	17.668060	-9.390136	0.367137	3.545304		0.639361	0.054931
SWEDEN	-10.002620	-0.826475	5.666601	4.673386	-0.152657	-1.267964	1.532701	4.131512	0.238841
SWITZERLAND	-0.012412	0.203690	0.810929	5.082948	-1.520969	1.943476	0.953559	3.105858	0.138412
SYRIA	0.193830	0.102220	-1.469844	-2.337590	-1.097984			0.542807	0.063540
TAIWAN	0.016437	0.320620	-1.420201	2.351563	-0.479159	-1.280583		1.583346	0.063376
TAJIKISTAN	0.496028	-3.530997	-9.003618	-2.036255	22.906170	-23.405430		0.164212	0.047449
TANZANIA	0.025585	-0.058115	-0.407095	0.392681	-0.819181	1.889848	-0.797488	0.197075	0.037920
THAILAND	-0.059958	-2.773205	3.945467	-0.923099		-1.346130	6.863092	0.765881	0.732102
TOGO	-0.121196	-0.015859	-0.081918	1.885984	-0.625561	1.443165		46.678540	0.906757
TONGA	0.064974	-3.216462	-1.034925	-0.561440	-0.406275	2.025812		4.418213	0.286558
TRINIDAD & TOBAGO	0.026000	-1.008399	-2.060165	-0.138243	0.252736	-0.181368	-0.909884	2.149686	0.331587
TUNISIA	-0.022848	3.493099	2.134934	-0.115727	0.883388	-11.213830	10.199150	1.153911	0.216877
TURKEY	0.110987	-0.295901	-3.868013	0.592577	0.225160	-2.172245	0.357678	2.276400	0.225169
TURKMENISTAN	0.299952	-0.404455	-12.722840	3.796092		-10.181260		1.943121	0.463407
TUVALU	0.006400	0.145253	-0.830602	0.000842				22.369900	0.485916
UGANDA	0.059703	-1.623785	-2.673765	-0.371814	-0.063488	-1.369804	1.649333	3.338079	0.408507
UKRAINE	-0.003840	1.276043	9.581183	1.481635		-2.344870	1.886012	0.209155	0.070857
UNITED ARAB EMIRATES	-0.008650	-6.427426	-2.663498	-0.002413	0.860380	1.076734	0.400778	3.084960	0.339568

UNITED KINGDOM	-0.011122	1.314812	1.439752	2.329987		0.174906	-0.142357	1.337901	0.054083
UNITED STATES OF AMERICA	0.011730	-0.546439	-1.820024	3.995132	0.020743	-1.914760		5.864946	0.200409
URUGUAY	0.408339	-1.294827	-21.506430	-8.210780	8.193704	-13.604590	-2.263000	1.897066	0.185434
UZBEKISTAN	0.002325	-0.450977	-1.513515	-0.013536		0.003059		2.094505	0.511540
VANUATU	-0.107450	4.821634	2.586792	1.068792	0.448976	-0.467418		1.746253	0.367922
VENEZUELA	0.071726	0.627959	-0.513871	-0.084110	-0.184510	8.589739	-8.973618	1.315879	0.155128
VIETNAM	0.012592	1.459377	0.695669	-0.447402		-0.281262		1.412993	0.126578
YEMEN	-0.095528	0.881321	0.546419	-0.519668		0.215068		0.069885	0.601084
ZAMBIA	0.061421	-0.672698	-2.627399	-0.288062	-0.080731	-0.080685	-0.042560	1.473413	0.184791
ZIMBABWE	-0.022756	-1.967684	-0.077977	1.463371	1.982049	-3.670921	2.780512	1.679639	0.314168

Country	p-value of β	p-value of λ	p-value of δ	p-value of θ_1	p-value of θ_2	p-value of θ_3	N
AFGHANISTAN	0.503500	0.189800	0.460800				14
ALBANIA	0.287300	0.173600	0.978900		0.666400	0.299300	31
ALGERIA	0.195100	0.291800	0.604100	0.187400	0.072700		25
ANGOLA	0.904800	0.587300	0.050200	0.077800	0.630600	0.402500	30
ANGUILLA	0.288900	0.312300	0.281000	0.979100	0.358200		23
ANTIGUA & BARBUDA	0.723200	0.932400	0.579600	0.316400	0.359200		54
ARGENTINA	0.707800	0.467600	0.062000	0.708300	0.566700	0.340500	10
ARMENIA	0.769200	0.351600	0.377700	0.237500	0.234100		22
ARUBA	0.555600	0.639200	0.357700	0.916800	0.724500		29
AUSTRALIA	0.604000	0.114300	0.275000	0.024900	0.997000	0.418400	122
AUSTRIA	0.540200	0.517500	0.108000	0.285900	0.719700	0.858000	87
AZERBAIJAN	0.839700	0.361100	0.212400	0.883100	0.002300	0.000200	49
BAHAMAS	0.306300	0.417400	0.189300	0.333200	0.375300	0.937700	29
BAHRAIN	0.140200	0.019600	0.943000	0.882200	0.329400	0.460500	23
BANGLADESH	0.038100	0.096300	0.206400	0.464200	0.452000	0.795300	24
BARBADOS	0.505900	0.226700	0.136300		0.752500		18
BELARUS	0.098600	0.006700	0.272300	0.473600	0.283800	0.052200	50
BELGIUM	0.300400	0.007200	0.030800	0.642900	0.571500	0.662800	57

BELIZE	0.326700	0.903700	0.008500	0.185300	0.159900		58
BENIN	0.000500	0.900200	0.572700	0.008000	0.335200		30
BERMUDA	0.000000	0.226200	0.056200		0.725300		57
BHUTAN	0.059300	0.872400	0.321100		0.898600		8
BOLIVIA	0.840500	0.012000	0.569000	0.444000	0.616900	0.846200	68
BOSNIA & HERZEGOVINA	0.571400	0.613400	0.270000	0.347600	0.334200	0.471200	29
BOTSWANA	0.234500	0.394000	0.273300	0.692800	0.404000		42
BRAZIL	0.000100	0.788600	0.739700	0.003900	0.000300	0.001200	70
BRUNEI	0.063300	0.003800	0.002000	0.651100			13
BULGARIA	0.030300	0.795700	0.042200	0.068800	0.742200	0.051100	65
BURKINA FASO	0.049700	0.014200	0.145400	0.962500	0.775200		46
BURUNDI	0.936900	0.857200	0.372700	0.518400	0.235100		49
CAMBODIA	0.629000	0.545300	0.041400	0.103700	0.592800		15
CAMEROON	0.988600	0.814300	0.412800	0.534500	0.949500		16
CANADA	0.029900	0.175700	0.108800	0.466100	0.305100	0.222600	123
CAPE VERDE	0.000100	0.001800	0.212200	0.161300	0.012300		44
CAYMAN ISLANDS	0.036600	0.408300	0.106900	0.096300	0.635300		19
CENTRAL AFRICAN REPUBLIC	0.535200	0.282000	0.628000	0.682700	0.724600		61
CHAD	0.104600	0.571700	0.428800	0.406300	0.252300		35

CHILE	0.597300	0.000100	0.004500	0.261900	0.136900	0.311600	65
CHINA	0.937500	0.411100	0.020500	0.036600	0.434900	0.547700	67
COLOMBIA	0.669300	0.071800	0.384700	0.233900	0.792300	0.289200	58
COMOROS	0.000100	0.000000	0.290400	0.090200	0.251700		62
COSTA RICA	0.473900	0.383600	0.152100	0.240300	0.237700	0.343400	70
CROATIA	0.405900	0.342200	0.851700	0.278900	0.538100	0.330600	34
CUBA	0.000200	0.017000	0.054200				16
CURACAO	0.685200	0.483300	0.446300				32
CYPRUS	0.509200	0.729000	0.695900	0.845000	0.751900	0.795200	12
CZECH REPUBLIC	0.177900	0.950800	0.000000	0.252700	0.289900	0.186600	70
DEMOCRATIC REPUBLIC OF CONGO	0.345000	0.542200	0.007200	0.093000	0.029400		26
DENMARK	0.013100	0.258300	0.940800		0.083100	0.010800	114
DJIBOUTI	0.974900	0.555000	0.897400	0.588800	0.632600	0.979900	8
DOMINICA	0.410000	0.037600	0.942800	0.350400	0.273500		61
DOMINICAN REPUBLIC	0.416800	0.083100	0.573100	0.729200	0.978500	0.435700	50
EAST TIMOR	0.893000	0.228700	0.563700		0.016900		10
ECUADOR	0.992100	0.383800	0.272900	0.029100	0.138700		47
EGYPT	0.176000	0.640300	0.143600	0.103000	0.733600		71
EL SALVADOR	0.629700	0.336500	0.707900	0.285800	0.424400	0.154900	30

EQUATORIAL GUINEA	0.032000	0.143200	0.079700	0.020100	0.017500		8
ERITREA	0.479200	0.630000	0.300400	0.773300	0.575400		69
ESTONIA	0.000100	0.000000	0.008600	0.062200	0.008300	0.004700	62
ETHIOPIA	0.871900	0.829100	0.844500				28
FIJI	0.020400	0.020600	0.020400				5
FINLAND	0.386600	0.967000	0.004600	0.692800	0.459000	0.654100	118
FRANCE	0.572800	0.789400	0.000500	0.232400	0.049000	0.637400	118
GABON	0.374400	0.867900	0.525600	0.714000	0.965600		54
GAMBIA	0.361200	0.334100	0.515000				12
GEORGIA	0.112100	0.064400	0.313000	0.084800	0.358500	0.659400	42
GERMANY	0.151500	0.029300	0.156200		0.172700	0.355300	98
GHANA	0.986600	0.288600	0.311800	0.526800	0.250300		25
GREECE	0.765400	0.615100	0.003000		0.215100	0.835300	97
GRENADA	0.393000	0.446800	0.859900	0.013500	0.096700		61
GUATEMALA	0.374800	0.656500	0.006500	0.788200	0.851300	0.178500	57
GUINEA	0.794600	0.893200	0.669800	0.002200			52
GUINEA-BISSAU	0.112200	0.513000	0.450500	0.771300	0.766000		46
GUYANA	0.421000	0.699300	0.771800	0.358700	0.351900		62
HAITI	0.073000	0.655700	0.108800	0.845100	0.673600	0.395600	46

HONDURAS	0.614400	0.642400	0.088800	0.731100	0.801000		70
HONG KONG	0.042500	0.896900	0.000100	0.196400	0.820500	0.995100	117
HUNGARY	0.286500	0.564900	0.445500		0.994700	0.525700	93
ICELAND	0.111800	0.000000	0.818400	0.013900	0.000000	0.033300	64
INDIA	0.283200	0.124100	0.713100	0.836600	0.698400	0.934600	34
INDONESIA	0.162300	0.184700	0.315700	0.308600	0.212400	0.229800	38
IRAN	0.001400	0.962900	0.396500	0.786200	0.116500		39
IRAQ	0.121900	0.202800	0.211200	0.078800	0.076700		16
IRELAND	0.518200	0.835600	0.092000	0.314100	0.379100	0.563700	81
ISRAEL	0.532700	0.519300	0.637100	0.127700	0.583700	0.041400	31
ITALY	0.318000	0.166500	0.192700	0.714900	0.991500	0.530600	87
IVORY COAST	0.948600	0.740200	0.792600	0.818200	0.773600		22
JAMAICA	0.156500	0.477400	0.799800	0.000000	0.000000		76
JAPAN	0.317800	0.430700	0.012700	0.529700	0.859400	0.062300	59
JORDAN	0.229100	0.986400	0.998300	0.251500	0.061900		56
KAZAKHSTAN	0.799700	0.546100	0.014400	0.048400	0.000000	0.047200	50
KENYA	0.493800	0.562900	0.900100	0.439400	0.638700	0.108800	40
KIRIBATI	0.090200	0.111100	0.814200				27
KOSOVO	0.422700	0.153100	0.405800				29

KUWAIT	0.471500	0.154100	0.467200	0.000900	0.040700	0.027300	57
KYRGYZSTAN	0.050000	0.520000	0.581100	0.253700	0.385200		24
LAOS	0.093200	0.107700	0.004900		0.460400		30
LATVIA	0.945700	0.117700	0.090400	0.127100	0.048200	0.009400	34
LEBANON	0.520900	0.174400	0.264900	0.074300	0.315200	0.199100	44
LESOTHO	0.001100	0.206000	0.932900	0.135900	0.600300		57
LIBERIA	0.414300	0.677800	0.292800	0.612300	0.303000		23
LIBYA	0.794100	0.328600	0.685600	0.000100	0.000400		61
LITHUANIA	0.080200	0.020600	0.091700	0.721300	0.713800	0.746300	58
LUXEMBOURG	0.009500	0.000000	0.007000	0.010800	0.539200	0.115500	68
MACAU	0.888200	0.695600	0.309500	0.687500	0.931100		39
MADAGASCAR	0.798600	0.118000	0.266500	0.721900	0.304500		50
MALAWI	0.380400	0.007500	0.201300	0.555100	0.870500		26
MALAYSIA	0.052600	0.014500	0.050000	0.127300	0.393300	0.901100	57
MALDIVES	0.555400	0.377200	0.048000				52
MALI	0.749800	0.507500	0.597600	0.570200	0.761800		21
MALTA	0.249400	0.008700	0.070900	0.809700	0.153500	0.063300	45
MARSHALL ISLANDS	0.113800	0.761400	0.232300				43
MAURITANIA	0.818100	0.540000	0.281800		0.464100		22

MAURITIUS	0.035800	0.224500	0.451000	0.208800	0.243200		29
MEXICO	0.042400	0.054700	0.008800	0.041100	0.065600	0.277500	75
MICRONESIA	0.279000	0.380800	0.636300				39
MOLDOVA	0.187800	0.473300	0.497100	0.529100	0.966900	0.185300	37
MONGOLIA	0.172300	0.308900	0.043000	0.654700	0.028800		41
MONTENEGRO	0.383300	0.084300	0.099500				31
MONTSERRAT	0.092100	0.036100	0.446000	0.001400	0.025400		9
MOROCCO	0.591000	0.448600	0.040700	0.162300	0.289400	0.124500	46
MOZAMBIQUE	0.068600	0.891000	0.264700	0.014300	0.018100		32
MYANMAR	0.195200	0.064500	0.441400	0.420000	0.817700		16
NAMIBIA	0.753100	0.302800	0.053100	0.711600	0.614600		20
NEPAL	0.070100	0.520200	0.276100	0.583800	0.461000	0.537600	18
NETHERLANDS	0.541200	0.689400	0.000000	0.360400	0.724800	0.528300	94
NEW ZEALAND	0.190100	0.147000	0.276300	0.989300	0.007700	0.938600	78
NICARAGUA	0.367700	0.074700	0.322200	0.065400	0.556300	0.792200	70
NIGER	0.801400	0.192200	0.672500	0.301600	0.068500		28
NIGERIA	0.132200	0.487400	0.967600	0.243100	0.311400		48
NORTH MACEDONIA	0.175300	0.421600	0.595600	0.565100	0.444300		41
NORWAY	0.899200	0.435200	0.018000	0.677800	0.829300	0.896700	46

OMAN	0.486400	0.180900	0.702300	0.086600	0.565900		59
PAKISTAN	0.105800	0.855100	0.378900	0.714200	0.268200	0.073800	45
PALAU	0.815400	0.000000	0.236400				39
PALESTINE	0.334900	0.781300	0.369300				32
PANAMA	0.803000	0.863000	0.490300				17
PAPUA NEW GUINEA	0.130300	0.231300	0.856500			0.247800	54
PARAGUAY	0.034800	0.002900	0.027200	0.981900	0.379700	0.986900	35
PERU	0.021400	0.004400	0.370700	0.163100	0.122300		45
PHILIPPINES	0.010200	0.494400	0.001100	0.141400	0.114100	0.004800	123
POLAND	0.881900	0.013200	0.368600	0.885400	0.058200	0.047000	90
PORTUGAL	0.086000	0.005700	0.021700	0.474600	0.737600	0.802700	88
PUERTO RICO	0.671700	0.842300	0.514900				57
QATAR	0.932200	0.203700	0.898100	0.961900	0.662100	0.627800	42
REPUBLIC OF CONGO	0.568400	1.000000	0.701400	0.229700	0.233300		29
ROMANIA	0.024400	0.272900	0.425300	0.622800	0.232200	0.545900	55
RUSSIAN FEDERATION	0.017600	0.845500	0.822400	0.447100	0.229900	0.367200	69
RWANDA	0.310000	0.021800	0.517200	0.245300	0.872300	0.281700	25
SAINT KITTS AND NEVIS	0.486100	0.128800	0.306100	0.445100	0.679100		28
SAINT LUCIA	0.107400	0.578200	0.723600	0.346600	0.805000		16

SAINT VINCENT AND THE GRENADINES	0.856700	0.007700	0.599600	0.288700	0.748100		28
SAMOA	0.079900	0.107700	0.184300	0.584300	0.824100		61
SAO TOME AND PRINCIPE	0.145200	0.332800	0.944700	0.191100	0.942900	0.017600	56
SAUDI ARABIA	0.189200	0.026200	0.082500	0.938100	0.356700	0.200400	45
SENEGAL	0.896700	0.109100	0.556900	0.000800	0.001700		36
SERBIA	0.502900	0.512000	0.370800	0.422400	0.399000	0.339600	50
SEYCHELLES	0.459600	0.211800	0.691700	0.652000	0.334400	0.871400	34
SIERRA LEONE	0.099900	0.932000	0.285000	0.654600	0.553100		45
SINGAPORE	0.586300	0.066400	0.022700	0.018100	0.181300	0.668100	123
SLOVAKIA	0.817200	0.303300	0.045600	0.898400	0.804800	0.784600	53
SLOVENIA	0.226700	0.399300	0.099000	0.605000	0.269800	0.509800	54
SOLOMON ISLANDS	0.567700	0.325500	0.814800	0.109200	0.399400	0.091900	61
SOMALIA	0.355300	0.045900	0.534700		0.028400		90
SOUTH AFRICA	0.235400	0.001000	0.016300	0.866600	0.423800	0.954500	103
SOUTH KOREA	0.490800	0.641800	0.000000	0.588000	0.676500	0.659300	78
SOUTH SUDAN	0.476100	0.162900	0.266800	0.358500	0.276500		21
SPAIN	0.736700	0.734000	0.052500	0.525100	0.140000	0.210600	88
SRI LANKA	0.934200	0.702000	0.039000	0.093600	0.504600		21
SUDAN	0.184200	0.239400	0.079700	0.489200	0.563000		30

SURINAME	0.208700	0.196000	0.995600	0.539400	0.229500		57
SWAZILAND	0.745600	0.221400	0.303200	0.763100	0.146900		61
SWEDEN	0.572400	0.026600	0.000000	0.920500	0.449900	0.097600	86
SWITZERLAND	0.823300	0.635800	0.000800	0.017800	0.026400	0.312300	123
SYRIA	0.911800	0.350300	0.279000	0.108700			37
TAIWAN	0.775600	0.574500	0.010100	0.248100	0.267700		123
TAJIKISTAN	0.200000	0.795400	0.113500	0.172400	0.179900		65
TANZANIA	0.602900	0.761300	0.776600	0.460900	0.332600	0.560100	37
THAILAND	0.556300	0.653800	0.828100		0.496600	0.391500	7
TOGO	0.476000	0.190000	0.106900	0.014400	0.000000		30
TONGA	0.002300	0.463900	0.357200	0.332500	0.027600		61
TRINIDAD & TOBAGO	0.018700	0.006900	0.587200	0.133500	0.763600	0.029900	33
TUNISIA	0.035700	0.399300	0.840500	0.155200	0.174000	0.232100	32
TURKEY	0.704400	0.017300	0.524900	0.613100	0.455300	0.905900	54
TURKMENISTAN	0.261600	0.116800	0.579700		0.187500		14
TUVALU	0.175000	0.000000	0.984600				75
UGANDA	0.019200	0.022900	0.711600	0.939400	0.415000	0.136700	36
UKRAINE	0.014300	0.000000	0.406000		0.060900	0.029400	36
UNITED ARAB EMIRATES	0.032300	0.328900	0.997200	0.307500	0.443300	0.796200	43

UNITED KINGDOM	0.132500	0.302200	0.066100		0.772100	0.703400	123
UNITED STATES OF AMERICA	0.436500	0.227500	0.003100	0.959400	0.024600		123
URUGUAY	0.803900	0.178100	0.133800	0.249000	0.214400	0.674900	57
UZBEKISTAN	0.104200	0.142200	0.027900		0.613200		13
VANUATU	0.058500	0.173000	0.014800	0.020100	0.244900		21
VENEZUELA	0.219200	0.589900	0.616400	0.805200	0.554100	0.541600	50
VIETNAM	0.167500	0.789300	0.024900		0.042000		44
YEMEN	0.185100	0.706900	0.039100		0.600200		37
ZAMBIA	0.031300	0.027800	0.571900	0.542400	0.878400	0.946000	46
ZIMBABWE	0.027300	0.900900	0.275500	0.380500	0.210400	0.004700	29

Attachment 12 – Descriptive Statistics for R-Squared of Regression: Real Stock Return vs. Macroeconomic Variables, 1989.Q1 -2019.Q4 (Eq. 8)

	Mean	Median	Minimum	Maximum	Range	Variance	St. Deviation	Coeff. of Variation
WORLD	0.241148	0.191355	0.000167	0.968842	0.968675	0.041747	0.204322	0.847287
AFRICA	0.255496	0.150393	0.016032	0.968842	0.952810	0.066336	0.257558	1.008071
EASTERN AFRICA	0.300750	0.231562	0.032602	0.968842	0.936240	0.067921	0.260617	0.866557
MIDDLE AFRICA	0.252142	0.118803	0.016032	0.957782	0.941750	0.093615	0.305965	1.213464
NORTHERN AFRICA	0.133370	0.104260	0.076453	0.209213	0.132760	0.003947	0.062829	0.471085
SOUTHERN AFRICA	0.174794	0.120939	0.054443	0.466365	0.411922	0.028997	0.170285	0.974206
WESTERN AFRICA	0.267026	0.150393	0.028813	0.925005	0.896192	0.084283	0.290316	1.087219
AMERICA	0.239514	0.194154	0.040527	0.854700	0.814173	0.033495	0.183017	0.764116
CARIBBEAN	0.239175	0.180826	0.040527	0.854700	0.814173	0.040699	0.201740	0.843482
CENTRAL AMERICA	0.186413	0.169096	0.083597	0.324778	0.241181	0.006972	0.083497	0.447913
NORTH AMERICA	0.185677	0.218650	0.056964	0.281417	0.224453	0.013410	0.115802	0.623677
SOUTH AMERICA	0.284515	0.232004	0.051753	0.704675	0.652922	0.043512	0.208595	0.733162
ASIA	0.276799	0.232958	0.013153	0.884748	0.871595	0.041335	0.203309	0.734502
CENTRAL ASIA	0.344119	0.358754	0.028484	0.577427	0.548943	0.045712	0.213804	0.621308
EASTERN ASIA	0.174839	0.191943	0.036072	0.290403	0.254331	0.008399	0.091649	0.524189

SOUTH-EASTERN ASIA	0.435387	0.302541	0.116551	0.884748	0.768197	0.066406	0.257693	0.591872
SOUTHERN ASIA	0.238187	0.259710	0.013153	0.554243	0.541090	0.031177	0.176570	0.741311
WESTERN ASIA	0.217996	0.212409	0.035425	0.708943	0.673518	0.024839	0.157605	0.722973
EUROPE	0.184969	0.164761	0.000167	0.573140	0.572973	0.015478	0.124412	0.672611
BALKAN	0.151148	0.152092	0.030858	0.244870	0.214012	0.005763	0.075915	0.502256
CENTRAL EUROPE	0.134248	0.139905	0.030329	0.243375	0.213046	0.005031	0.070933	0.528373
EASTERN EUROPE	0.192809	0.202389	0.000167	0.461718	0.461551	0.022655	0.150514	0.780639
NORTHERN EUROPE	0.268129	0.242952	0.058001	0.573140	0.515139	0.042087	0.205152	0.765124
SOUTHERN EUROPE	0.211854	0.170432	0.102854	0.486039	0.383185	0.019165	0.138438	0.653462
WESTERN EUROPE	0.182800	0.168246	0.036471	0.350158	0.313687	0.011662	0.107992	0.590765
OCEANIA	0.229633	0.135386	0.032219	0.660049	0.627830	0.047421	0.217763	0.948307

	Skewness	Kurtosis	Count	Standard Error	1 st Quartile	2 nd Quartile	3 rd Quartile	Average Rank
WORLD	1.590511	2.366926	199	0.014484	0.091479	0.191355	0.302541	
AFRICA	1.566373	1.640479	54	0.035049	0.084154	0.150393	0.350574	151.80
EASTERN AFRICA	1.099967	0.792221	19	0.059790	0.076560	0.231562	0.427529	164.89
MIDDLE AFRICA	1.840486	3.313348	9	0.101988	0.054487	0.118803	0.417057	141.44
NORTHERN AFRICA	0.533544	-2.976918	5	0.028098	0.080304	0.104260	0.200992	106.40
SOUTHERN AFRICA	1.797695	3.343218	5	0.076154	0.056332	0.120939	0.320184	109.80
WESTERN AFRICA	1.694735	1.681996	16	0.072579	0.089623	0.150393	0.294356	169.38
AMERICA	1.587897	2.695202	42	0.028240	0.128151	0.194154	0.316375	87.76
CARIBBEAN	1.716078	3.439548	20	0.045110	0.076958	0.180826	0.386693	85.74
CENTRAL AMERICA	0.763537	-0.225650	7	0.031559	0.134916	0.169096	0.270032	114.29
NORTH AMERICA	-1.177427		3	0.066859	0.056964	0.218650	0.281417	35.67
SOUTH AMERICA	1.034323	0.334106	12	0.060216	0.109202	0.232004	0.365069	95.42
ASIA	1.203755	1.174520	49	0.029044	0.113445	0.232958	0.351928	87.73
CENTRAL ASIA	-0.681955	0.026024	5	0.095616	0.145904	0.358754	0.535017	132.00
EASTERN ASIA	-0.649868	-0.721137	7	0.034640	0.065508	0.191943	0.232087	40.43

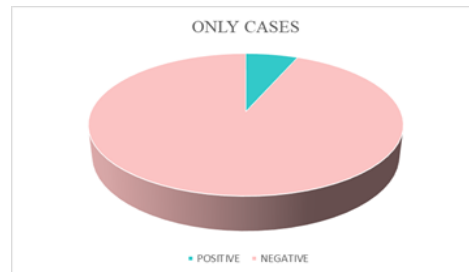
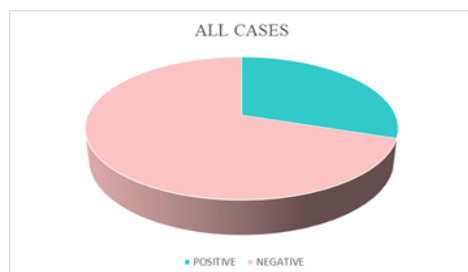
SOUTH-EASTERN ASIA	0.611809	-0.990814	11	0.077697	0.232958	0.302541	0.691415	97.00
SOUTHERN ASIA	0.506942	0.029137	8	0.062427	0.075908	0.259710	0.361890	133.75
WESTERN ASIA	1.894013	4.879828	18	0.037148	0.092923	0.212409	0.250568	71.83
EUROPE	1.246736	1.938496	41	0.019430	0.108798	0.164761	0.234615	49.29
BALKAN	-0.370365	-0.831865	7	0.028693	0.096083	0.175327	0.220179	88.50
CENTRAL EUROPE	-0.103556	-0.367917	8	0.025079	0.047204	0.139905	0.199948	34.50
EASTERN EUROPE	0.556706	0.041840	8	0.053215	0.049963	0.202389	0.315733	74.50
NORTHERN EUROPE	0.774953	-0.091180	5	0.091747	0.086372	0.242952	0.462476	18.20
SOUTHERN EUROPE	2.125245	4.853190	6	0.056517	0.140014	0.170432	0.201351	40.17
WESTERN EUROPE	0.362457	0.276177	6	0.044087	0.083986	0.134266	0.276192	18.17
OCEANIA	1.223807	0.127144	13	0.060397	0.073448	0.135386	0.389531	130.54

Attachment 12.1 – Box Plot of R-Squared



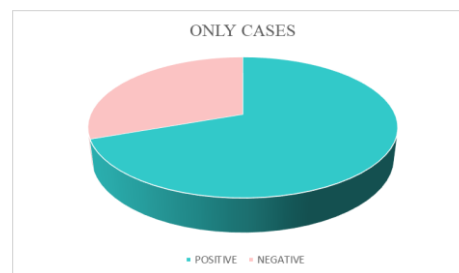
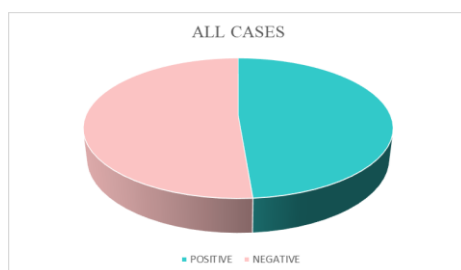
Inflation

	Positive	%	Negative	%	Total
All Cases	60	30.15%	139	69.85%	199
Only Cases	3	6.38%	44	93.62%	47



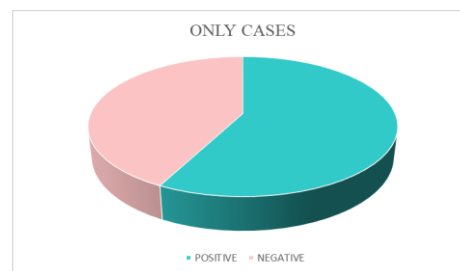
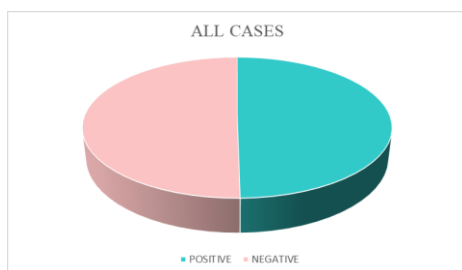
Interest Rate

	Positive	%	Negative	%	Total
All Cases	97	48.74%	102	51.26%	199
Only Cases	25	69.44%	11	30.56%	36



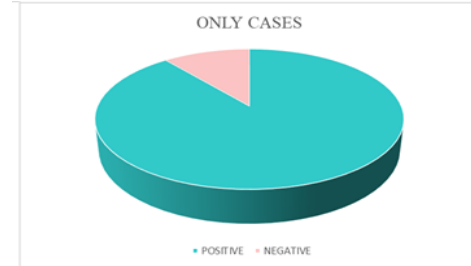
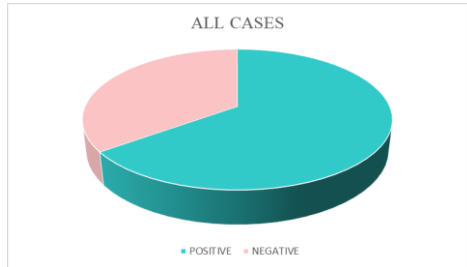
Δ Interest Rate

	Positive	%	Negative	%	Total
All Cases	99	49.75%	100	50.25%	199
Only Cases	23	57.50%	17	42.50%	40



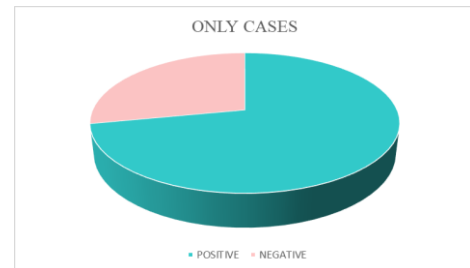
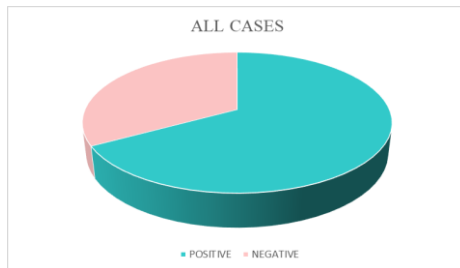
GDP

	Positive	%	Negative	%	Total
All Cases	129	64.82%	70	35.18%	199
Only Cases	41	89.13%	5	10.87%	46



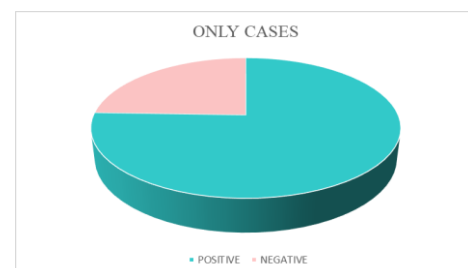
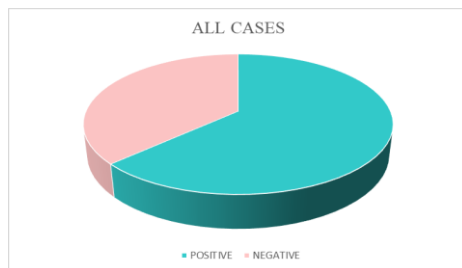
Money Supply 1

	Positive	%	Negative	%	Total
All Cases	119	66.85%	59	33.15%	178
Only Cases	23	71.88%	9	28.13%	32



Money Supply 2

	Positive	%	Negative	%	Total
All Cases	116	63.04%	68	36.96%	184
Only Cases	34	75.56%	11	24.44%	45



Money Supply 3

	Positive	%	Negative	%	Total
All Cases	65	65.00%	35	35.00%	100
Only Cases	17	77.27%	5	22.73%	22

